

# Institutional and Sustainability Report 2018

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### How to read this Report

Siemens' Institutional and Sustainability Report is an annual publication produced by Siemens Brazil with the objective of increasing company transparency. Available on Siemens Brazil's online platforms, the publication intends to reinforce transparent communication with all stakeholders (customers, employees, suppliers, coworkers, universities, entities and communities) that already have, or may come to have, some kind of relationship with the company.

The first step in producing this publication is to consult these stakeholders to identify what topics pertaining to Siemens interest them the most. As such, the report presents itself as an answer to topics that are of interest to our stakeholders.

The financial data reported herein refers to the October 1, 2017 – September 30, 2018 period and appears in a consolidated manner, in accordance with the company's head-office policy, in Germany. To access complete financial data for Siemens AG, click on the following link:

http://www.siemens.com/investor/pool/en/investor\_relations/Siemens\_AR2018.pdf

Access and download the following global Siemens apps: www.siemens.com/social/en/applications.php



This edition of Siemens' Institutional and Sustainability Report 2018 follows the guidelines defined in the Global Reporting Initiative (GRI), an international organization that standardizes publications of this sort. The publication adopts Global Reporting Initiative (GRI) standards in substitution to the G4 version, and data corresponding to the indicators appears in footnotes according to their acronyms.

If you have any comments, criticisms or suggestions, please contact our Customer Service Center (CAS): www.siemens.com.br/contato; at 0800 11 94 84 or by e-mail: atendimento.br@siemens.com

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## Dear reader,

The goal of this report is to present society Siemens' work in Brazil. In the pages that follow, you will find information about our business activities in various segments and will clearly note that they all converge towards a single principle: improve people's lives. This firm commitment is based on Siemens' strategy in Brazil and worldwide. We are signatories of the United Nations' Global Pact Brazil Network – an initiative that engages the business sector, aligning strategies and operations around ten universal principles in the areas of Human Rights, Labor, Environment and Anticorruption, in addition to developing actions that create solutions for society's challenges. To satisfy such demand, we adopted the 17 Sustainable Development Goals (SDGs) of the United Nations' 2030 Agenda to guide our work fronts.

2018 was a very positive year for the company in Brazil, albeit the timid economic recovery we experienced. Despite this scenario, Siemens' main business areas registered remarkable performances and a significant increase in sales. Net income totaled R\$4.1 billion while new orders amounted to R\$4.2 billion, R\$600 million more than fiscal 2017. However, these figures were not the only good news. We were also very successful in the three priorities we elected for the period: consolidate digitalization in our markets, place customers at the center of attention and lead by example.

The progress achieved in digitalization was evident. In 2018, we made this concept become reality as new technologies have shown significant potential in all economic sectors, including the most traditional, like agribusiness. Given this trend, Siemens created its Beef Center of Competence, envisioning the great potential of Brazil's beef market, both domestically and abroad. This new structure represents a global hub for the development of digital solutions along the entire animal-protein production chain.

To position itself ahead of future trends has always been a Siemens trait, supported by corporate values, such as innovation. And, if we find support in our propositions, this mainly happens because we stimulate our customers, encouraging them to think of new business models. If we have been so successful in this process, it's because we benefit from the trust of these partners, who value our posture of doing more than simply offer products and services. Today, at Siemens, the business development norm is co-creation, where our teams first seek to gain a thorough understanding of customer needs and expectations in order to then jointly come up with the best solutions. An example of this approach was the project conducted at Braskem. The customer's original intention was to utilize more efficiently the gas from its industrial processes, financing the project through its own capital and partner investments. We decided to innovate in our proposal, taking over the construction, operation and maintenance of the project. With a projected investment of R\$600 million, the partnership includes the technological updating of the system that services the cracker, the main industrial unit of the Petrochemical Complex, responsible for producing inputs for the chemical and plastics sectors. With this, Braskem ensures the supply of gas while Siemens guarantees the supply of energy and steam for a period of 15 years.

Another key project currently underway that we are quite proud of is Gás Natural Açu (GNA), a consortium in partnership with Prumo Logística and BP. In addition to participating in the project as a shareholder, Siemens was also contracted to supply generation equipment and long-term services. The project's long-term financing includes a contract with International Finance Corporation (IFC) in the amount of US\$288 million signed in March 2019, and another of R\$1.76 billion with the National Bank of Economic and Social Development (BNDES) and Germany's KfW IPEX-Bank, closed in December 2018. When ready, the new plant located in Porto de Açu (RJ) will have the capacity to generate energy for a city of up to 4 million inhabitants.

In another entrepreneurial development, Siemens went beyond its role of supplier and installed, with its own financial resources, a new thermal power plant in the state of Amazonas, in the municipality of Coari. With an investment of approximately R\$470 million, the agreement will ensure energy supply to more than 80 thousand inhabitants, using gas and steam combined-cycle turbines, as well as Siemens' electrification, automation and digitalization solutions.

The third priority – lead by example – also yielded important achievements for the Siemens team. The year was marked by a series of fundamental themes for Brazil that positioned us in a leadership role, such as energy transition, which we discussed with customers and specialists at our Siemens Forum in Rio de Janeiro. Within the scope, Compliance is a permanent theme at Siemens. In 2018, for example, we signed an integrity pact with several companies and entities through the Brazilian Petroleum Institute (IBP) with the objective of ensuring ethics in business and relations with government agents, as well as improve corporate governance in the sector. Additionally, we maintained and expanded our participation in initiatives such as the United Nations' Global Pact Brazil Network, International Chamber of Commerce, Alliance for Integrity, among others.

To lead by example is also to actively participate in actions to mitigate climate change. Siemens was listed by the Carbon Disclosure Project (CDP) as an agent capable of influencing climate change, avoiding its harmful effects and, at the same time, fostering actions capable of generating constructive business from both an economic and environmental perspective. In Brazil, our alignment with this position is translated by a public commitment to promote policies that help society in relation to climate change, supporting the pricing of carbon in the country and efficiency in managing water and waste.

For us, it is also fundamental to support initiatives that foster diversity, not only for the social commitment that the theme suggests, but also because we truly believe that innovation thrives in an environment that's diversified as much as possible. Along this line, the year was also marked by the launching of the DiverSifica program, created to promote diversity in the company. The initiative comprises employees from several areas, with a committee that handles strategic themes and work groups broken down into four pillars: Ethnic Group and Race, Gender, LGBTI+ and People with Disabilities. In 2019, we continued to advance in the diversity field by introducing Parental Leave, targeted for homoaffective couples that opt to have children through surrogacy, as well as signing a commitment with UN Women to promote gender equity in the company.

In ending such a positive year, we saw ourselves before a new challenge. Globally, Siemens achieved the targets proposed by its Vision 2020 strategy ahead of schedule. Instead of relaxing after achieving this goal, we proposed a new version for the strategy, Vision 2020+, which allowed us to "raise the bar". As a result, we earned the right to pursue a more ambitious vision for our company, building on our achievements.

We will do this using a tool that is deeply rooted in Siemens' origin: innovation. Applying disruptive concepts, such as Artificial Intelligence, cloud computing, Big Data, we will benefit from one of our greatest strengths – being present throughout the world, having a large installed bases at our customers and, especially, knowing the business of these customers. And most importantly: we know the society where they do business and the demands of this society, which fills us with optimism to continue conducting our business to maintain our relevance now and in the future.

André Clark President and CEO of Siemens Brazil In 2018, we very successful in the three priorities we elected for the period: consolidate digitalization in our markets, place customers at the center of attention and lead by example."

> André Clark President and CEO of Siemens Brazil



## **Our Values**

Excellence, Responsibility and Innovation: these are the three Values that guide Siemens' activities around the world. We consider these to be essential characteristics to continuously evolve in the development of our products, services and operations, creating new business opportunities.

In all its business sectors, Siemens aims to be a reference in the creation of technology and production of knowledge based on data generated by our innovations. Sustainability and a concern for the well-being of our employees and all those that interact with Siemens are factors inherent to our strategy.

#### Ingenuity

The Siemens slogan – "Ingenuity for life"– was adopted by the company in 2016, the year in which the company's founder, Werner von Siemens, would celebrate his 200th birthday. The word ingenuity refers to three key concepts: innovation, engineering and genius.

By defining the slogan along these concepts, we convey to the world our commitment to create value for our customers, employees and for society, with the certainty that we can always do more and also improve our work.



SIEMENS

Ingenuity for life



In billions of reais 1)

#### • In 2018:

Since the beginning of fiscal 2018, Siemens adopted the IFRS 15 accounting standard (Revenue from Contracts with Customers). Data from previous years is presented in comparative bases

- \* Total for Siemens in Brazil
- \* Data does not include the companies Gamesa and Healthineers.

### Vision 2020

In 2014, Siemens launched its global strategy Vision 2020, defining objectives that were to be achieved by the year 2020. The mission of this strategy was clear:

"We make real what matters, by setting the benchmark in the way we electrify, automate and digitalize the world around us. Ingenuity drives us and what we create is yours. Together, we deliver".

At the end of 2018, the company announced that the objectives established in 2014 had been achieved and well ahead of schedule. Rather than simply celebrate and rest on the laurels of the success obtained, the company preferred to launch a new challenge: Vision 2020+.

#### **#RaisingTheBar**

What Vision 2020+ proposes is a next step that prepares the company to achieve ambitious objectives worldwide. By earning the right to go further and do more, the company's motto for the next years has become #RaisingTheBar.

There are basically four reasons that led to the decision to not sit back and rest on the success obtained:

The geopolitical and economic relations that the economy was based on in the past are no longer necessarily valid;

The next decade will be marked by the greatest technological and social transformation in history;

Global megatrends are causing paradigm changes that will affect business;

The speed of transformations taking place around the world require that the company be much more in tune with its markets and have the flexibility and agility to adapt to changes. "Vision 2020+ is Siemens' new vision of the future: a focused and adaptable company, united by the greater purpose of serving society and creating value for all those that interact with it. We are a globally competent, committed and motivated team and we are building a long-lasting company."

Joe Kaeser, President and CEO of Siemens AG

According to Siemens' updated strategy, the key factors for success are the following:

- Focus: Embrace entrepreneurial freedom and be the best in your market
- Accountability: Be the owner of your decisions and act in a responsible manner
- Adaptability: Be bold and act quickly in the digital era

The foundation of Vision 2020+ continues being the Ownership Culture where each employee, from management to interns, must assume personal responsibility for the company's success. To act in accordance with this culture implies in aligning with what the company thinks about its values, ethical behavior, leaders, shareholding interest and people orientation.



GRI Indicator: 102-1

### Make real what matters for Brazil

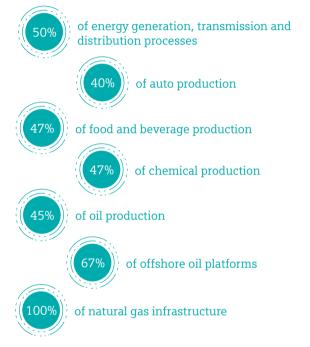
Brazil is perceived by Siemens as a highly relevant market, not only in times of economic boom, but also in the more-difficult times. Siemens has been in Brazil since 1867, remaining here uninterruptedly and continually broadening its knowledge about this market.

Today, Siemens' presence in the Brazilian economy shows some expressive statistics:

Our activities directly affect the creation of R\$20.2 billion of Brazil's GDP.

Our operations direct and indirectly affect the creation of 260 thousand jobs.

We are present in:



And we still believe that Brazil presents significant growth potential over the next years. This is why Siemens AG's expectation regarding the Brazilian subsidiary's performance is high, projecting aggressive growth over the next years – the idea is to double the company's business volume by 2020 (based on 2014 figures).

In 2018, during a visit by Siemens AG's President and CEO, Joe Kaeser, the company signed a memorandum of understanding with the Brazilian Export and Investment Promotion Agency (Apex-Brasil). The goal is Brazil's sustainable growth, pointing to an increase in the company's investments in the country and focusing on Brazil's infrastructure bottlenecks:

- Ensure the supply of energy
- Adhere to environmental-related agreements
- Increase the competitiveness of Brazil's industry abroad
- Increase the efficiency of Brazil's logistics network
- Ensure universal access to good quality healthcare

This commitment is in line with Siemens' strategies that aim to improve people's quality of life. And working with partners is essential to achieve success. To accomplish these objectives, Siemens gathered its strategic council in a workshop to define key themes of the company for the next years:

Themes related to energy have gained so much importance that, in 2018, Siemens organized its forum for customers around the energy transition topic. The world needs to increase the share of renewable sources in energy generation and Brazil has been doing this for several decades already. The country's energy matrix is predominantly composed of water sources. However, at a moment in which Brazil's population growth is expected to pressure the use of water, especially for its basic use (water consumption), several questions arise: in what direction should Brazil head within this context? How to ensure the supply of energy to people, without sacrificing the environment? How to generate energy in locations closer to large consumption centers?

Themes such as these were discussed at the "Siemens Forum 2018 – Leveraging Brazil's Potential

More than 400 participants listened to lectures,

interacted in panels, visited an exhibition with examples of Siemens' solutions, with emphasis on

digitalization resources, as well as sustainability

The manner how Siemens shapes its business is

based on the customer's perspective. This vision

allows the company to adjust the focus of its

business areas regarding demands of segments

serviced by them and to include the needs of

these customers. With this, the solutions offered become not only answers to these de-

mands, but also the result of a thorough under-

standing and the co-creation between Siemens

This broad and deep outlook has yielded highly

positive results for Siemens Brazil. Over the last years, our Net Promoter Score (NPS) has contin-

uously increased: 46% (2016), 52% (2017) and

54% (2018). This figure represents the percent-

age of customers willing to recommend Siemens

to its peers and reflects the company's efforts to

always perform in an efficient manner.

and its customers.

in the Energy Transition", in Rio de Janeiro.

projects and programs of the company.



Food and beverage



Oil & gas



Water & sanitation



Metals and mining



Energy generation



Pulp & paper



## **Siemens in Brazil**

Siemens has been in Brazil since the late 19th century. Our first project in the country already related to local development, when we installed Brazil's first telegraph line, connecting Emperor D. Pedro II's residence in Rio de Janeiro to Rio Grande do Sul, in 1867. Siemens' founding as a company established in Brazil occurred in 1905.

Since then, there were many projects based on a pioneering approach. In 1909, Siemens installed the first diesel-electric unit in Brazil and, in 1922, the first automatic telephone exchange in Latin America. In 1939, we installed Brazil's first transformer plant. The first rotor of Itaipu hydro power plant's 18 generators was installed by Siemens in 1983 and, in 1989, Siemens was the first company in Brazil to receive ISO-9000 quality certification.

Siemens currently has roughly four thousand employees, 13 manufacturing facilities, seven R&D centers and 15 regional offices in Brazil. With its businesses strategically positioned in the electrification, automation and digitalization areas, Siemens stands out in several market segments, being recognized as one of the largest durable-goods industries in Brazil.

Siemens installs the first major telegraph line in Brazil between the Emperor's residence in Rio de Janeiro and the city of Rio Grande (RS).

1867

### 1905

Cia. Brazileira de Electricidade Siemens-Schuckertwerke, is founded in Rio de Janeiro, the first electric-electronics multinational to establish itself in Brazil.



Siemens installs

Rio de Janeiro.

1909

Brazil's first diesel-

electric unit at the

Municipal Theater of

1922

and Chicago).

Siemens supplies and

installs Latin America's

first automatic telephone

exchange in Porto Alegre

(RS), and the third in the

Americas (after New York



Siemens installs Brazil's first transformer plant, in São Paulo (SP).

1939

### 1955

Supplied by Siemens to Coperbo (PE), Brazil's first steam turbine begins operating. Siemens inaugurates its Lapa (SP) plant.

Siemens inaugurates its new transformer plant in Jundiaí (SP).



1975

Siemens receives Brazil's first ISO 9000 certification.

1989





Siemens installs the first of 18 Itaipu generator rotors, with a power of 823.6 MVA.



São Paulo – Siemens' headquarters in Brazil



Siemens celebrates its 100th anniversary in Brazil.

2005

### 1998

Siemens Brazil's Telecommunications Division receives the National Quality Award (PNQ).



### 2007



Siemens inaugurates in Jundiaí (SP) the largest integrated energyequipment plant in South America.

Siemens inaugurates

assembly center in

Latin America, in

Cabreúva (SP).

2009

its first train modernization and



Siemens celebrates its 110th anniversary in Brazil.



### 2013

The first wind farms to use Siemens solutions are installed in the country.



### 2016



Acquisition of Dresser-Rand and Guascor.

HVDC transmission ensures energy supply in Brazil.

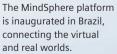


2019

Inauguration of the Coari Thermal Power Plant (AM).



### 2017





### Siemens' presence in Brazil

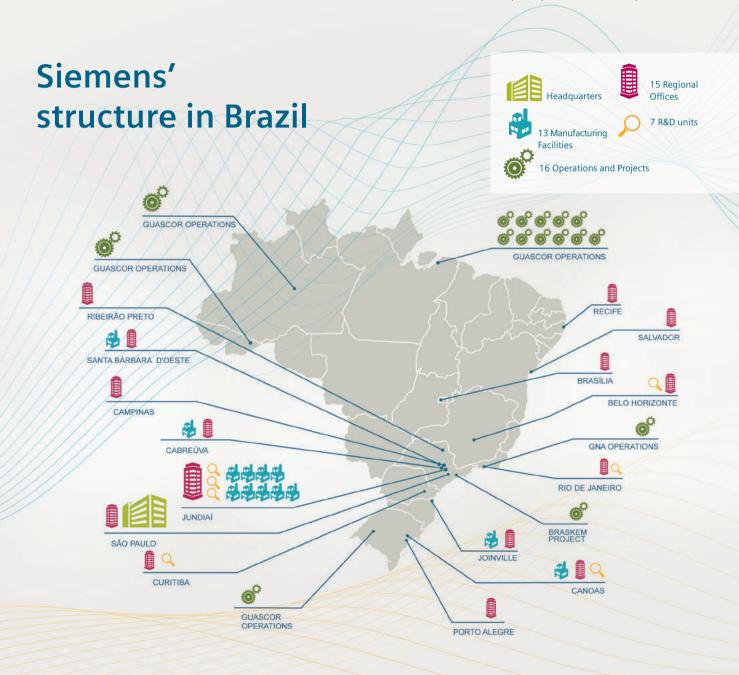
### With activities spanning practically the entire country, the Siemens Group in Brazil is composed of 14 companies

#### > Siemens Ltda.

- > Siemens Eletroeletrônica Ltda.
- > Iriel Indústria e Comércio de Sistemas Elétricos Ltda.
- > Chemtech Serviços de Engenharia e Software Ltda.
- Siemens Healthcare Diagnósticos Ltda.
- > Siemens Industry Software Ltda.
- > Siemens Wind Power Energia Eólica Ltda.

- > Siemens Gamesa Energia Renovável Ltda.
- > Industrial Turbine Brasil Geração de Energia Ltda.
- > Dresser-Rand do Brasil Ltda.
- > Dresser-Rand Participações Ltda.
- > Guascor do Brasil Ltda.
- Jaguari Energética S.A.
- Siemens Mobility Soluções de Mobilidade Ltda.

\*The above data refers to the Group's simplified structure in September/2018.



### The Organization in 2018



André Clark President and CEO



Wolfgang Beitz Chief Financial Officer



#### Sustainable Energy

**Power and Gas** Armando Juliani

**Power Generation Services** Armando Juliani



Future of Manufacturing Process Industries and Drives\* Pablo Fava Digital Factory\* Pablo Fava



Intelligent Infrastructure

Building Technologies\* Pablo Fava

**Energy Management** Guilherme Vieira de Mendonça

Mobility Andreas Facco Bonetti

Effective April 1, 2019, the Siemens Organization assumed a new structure based on Operating Companies: Gas and Power – CEO André Clark; Digital Industries – Pablo Fava; Smart Infrastructure – Sergio Jacobsen. Other strategic companies complement the structure: Siemens Healthineers and Siemens Gamesa Renewable Energy, which report separately.

\*Until October 1, 2018, areas headed by Renato Corte Brilho Buselli

## Jundiaí Industrial Complex

Jundiaí, SP Year founded: 1975 Company: Siemens Ltda.

**Transformer Plant** 



- 1. Power Transformers
- 2. Dry Transformers
- 3. High-Voltage Products and Equipment
- 4. Industrial Turbines and Service
- 5. Insulating Kits Plant (IKC)

- 6. Large Frequency Inverters
- 7. High-Voltage Power Capacitors
- 8. Medium-Voltage Products and Solutions
- 9. Energy Automation and Control Products and Solutions

## **Manufacturing Facilities in Brazil**

#### Cabreúva



Cabreúva, SP Year founded: 2011 Company: Siemens Ltda. Production lines: Start switches, buttons and traffic lights, micro-switches, contactors and circuit breakers.

#### Production and Logistics Center -Siemens Healthcare Diagnósticos S.A



#### Joinville, SC Year founded: 2012

Company: Siemens Ltda.

**Production lines:** Magnetic resonance, computed tomography, analog x-rays.

#### Canoas



#### Canoas, RS Year founded: 1964

**Company:** Iriel Indústria e Comércio de Sistemas Elétricos Ltda. **Production lines:** Power outlets, switches and plugs, power distribution centers.

#### Manaus

#### Manaus, AM Year founded: 1983

Company: Siemens Eletroeletrônica Ltda.

**Production lines:** 5SX mini circuit breakers, 3VF circuit breakers, overcharge relays, fuses, DR devices, surge suppressors, disconnecting switches, current transformers, drive buttons, contactors and NH cutouts.

\*Operation discontinued in June 2018

## Innovation





Siemens was founded in 1847 as a result of an innovation. We wish to continue being perceived as a company which innovations improve people's lives.

Werner von Siemens revolutionized communications when he invented the pointer telegraph in 1847. So, it was an innovation that created the company's foundations, and today it continues focused on researching and developing products, solutions and business models that are decisive for improving life in society. Siemens' research, development and innovation area currently employs 41,800 professionals worldwide. The company maintains roughly 65 thousand active patents. In 2018, Siemens' global investments in research and development amounted to €5.6 billion, which amounts to 6.7% of revenues.

Our research and development activities are currently targeted at areas that play a key role in the company's success and that of our customers. This group of areas is called Company Core Technologies (CCT). The implementation of CCT by company operating units ensures that research and development actions and company business strategies be coordinated.

### Innovation

#### In 2018, the company mainly focused on the following areas:



In 2017, Siemens also inaugurated Next47, a global venture firm that aims to identify innovative startups and accelerate them, strengthening Siemens' businesses in the future. The name Next47 stems from Siemens' history (founded in October 1847). It's a way of honoring the entrepreneurial and pioneering spirit of Werner von Siemens, projecting the company's success in the (next) generation.

In order to foster and integrate research, development and innovation initiatives in Brazil, Siemens created an Innovation Committee in 2016 and has been increasingly intensifying the co-creation and open innovation approach, building on existing local competencies and developing new ones.

#### Strategic innovation areas include:

energy transition – with the possibility of becoming one of the top five producers of oil worldwide, Brazil will benefit not only from this important raw material and byproducts such as natural gas, but also from the fact that this is a segment that will employ high technology and grow as a digital industry. Additionally, diversification of the energy grid and decentralization of electrical systems will require more and more innovations that provide a clean, efficient and good quality system at affordable prices.

and digitalization – which focuses on incorporating tools like Artificial Intelligence, Industrial Internet of Things, Big Data, Cloud Computing, among others. In this field, Siemens has particularly advanced in projects pertaining to the areas of electric mobility, food and beverage industry, as well as with its machinery manufacturing and distribution partners. As a result, Siemens' seven research, development and innovation units are increasingly more integrated and inserted in an ecosystem that operates in strategic areas for the company, promoting a systematic approximation with universities, entities, customers, suppliers and other partner companies, creating or tapping opportunities to develop innovative solutions.

Another highlight is the participation of a Brazilian team from Chemtech (a Siemens Group company) in the Next47 Accelerator program, which aims to accelerate innovative projects within the company with support from a team of experts. Siemens also participates in the Startup Connected program promoted by the Brazil-Germany Chamber of Commerce and Industry (AHK), where startups are given challenges to be solved.



## Products & Solutions

P. 20-41

The manner how we develop our products and solutions is a response to society's needs. The organization of Siemens' businesses is based on an extrapolation exercise that projects the population's main demands in the future. Our foundation for this is the United Nations' Sustainable Development Goals (SDGs). With the objective of helping build a better world for people, we developed a portfolio focused on three key areas: electrification, automation and digitalization.

Based on an analysis of the UN's 17 Sustainable Development Goals, Siemens analyzes in what way they impact or can impact the company. Some of them are considered high impact and can be achieved with help from our business activities, such as Goal 7 (ensure access to affordable, reliable, sustainable and modern energy for all) and Goal 9 (build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation).

Other goals, deemed medium impact, can be achieved thanks to our development and support work. As is the case with Goal 4 (ensure inclusive and equitable quality education and promote lifelong learning opportunities for all).

In 2018, the Siemens Group companies were structured along eight business divisions, grouped into three pillars: Sustainable Energy (Power & Gas and Power Generation Services Divisions), Future of Manufacturing (Digital Factory and Process Industries and Drives Divisions) and Intelligent Infrastructure (Energy Management, Mobility, and Building Technologies Divisions).





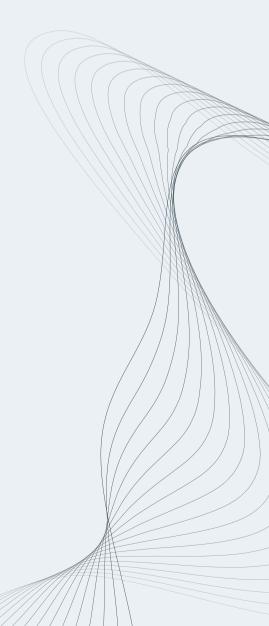


Future of Manufacturing



Intelligent Infrastructure

\* As of April 1, 2019. the Siemens Organization adopted a new structure based on Operating Companies: Gas and Power, Digital Industries, Smart Infrastructure; Other strategic companies complement the structure: Siemens Healthineers and Siemens Gamesa Renewable Energy, which report separately.





## Sustainable Energy

P. 22-27

The world is undergoing an energy transition and a search for sources that can generate more energy and emit progressively smaller amounts of polluting gases. In this environment, the pursuit of efficiency is a mandatory requisite for the sector.

Siemens is one of the most traditional companies in the energy generation sector, producing equipment that on a daily basis face the challenge of supplying reliable energy, optimize the utilization of resources through increasingly more efficient systems, generate greater productivity for our customers and help protect the environment.

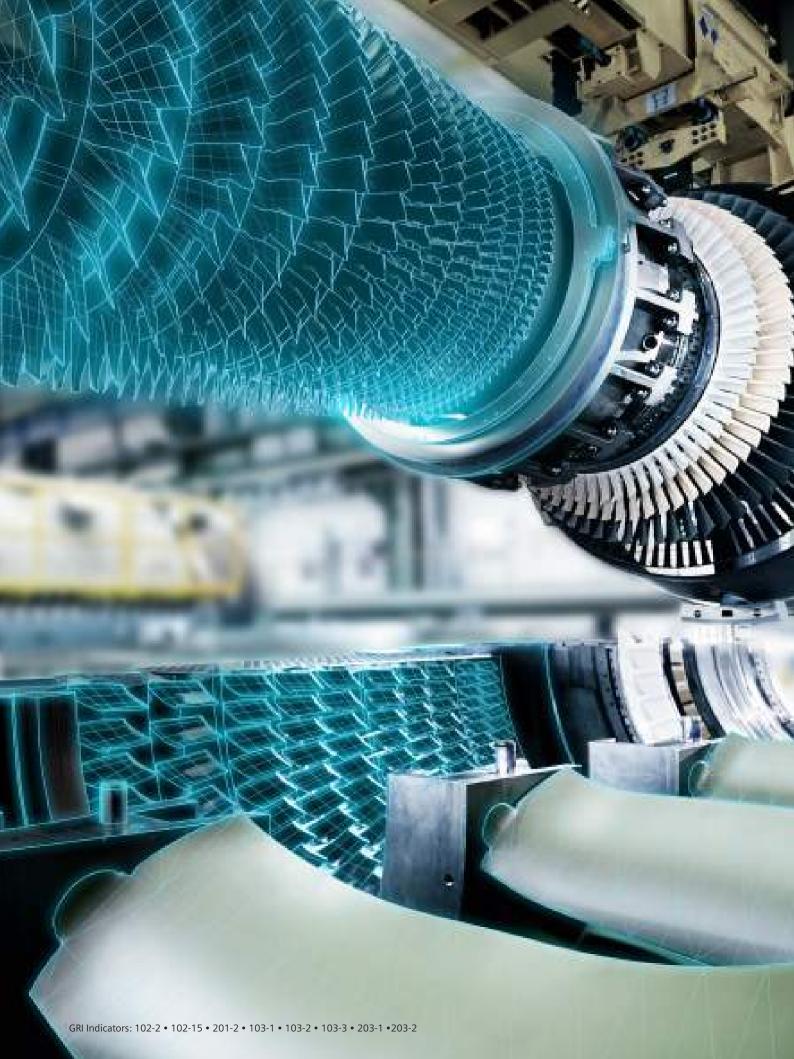
The company supplies state-of-the-art compressors, turbines and generators, virtual energy-generation plants, network management systems and innovative storage solutions. The entire product line is complemented by an array of excellence services to satisfy the specific needs of each customer.





Power and Gas

Power Generation Services



## **Power and Gas**



Siemens' products and solutions for energy generation comprise the most comprehensive portfolio in the market.

Energy generation continues being a challenge for society and Siemens' Power and Gas area is responsible for providing equipment and solutions to this segment. The company, which already offered a traditional portfolio of generation solutions, reinforced its market position in recent years with the acquisition of Rolls-Royce Energy, Dresser-Rand and Guascor.

With this strategic decision, the portfolio of solutions that included gas and steam turbines, generators, instrumentation and control systems for thermal power plants, process compressors, solutions for electrical and automation systems, now includes products catered to the oil and gas market, as well as diesel and gas engines for decentralized and autonomous systems.

2018 continued pointing globally to the high-growth potential of renewable sources in energy generation. Brazil, which historically has stood out for the prevalence of this type of source in its energy grid, is expected to continue generating most of its energy through hydro power plants.

However, an increasingly evident movement in Brazil is the increased use of oil and gas, not only due to the huge pre-salt reserves, but also the reduction of hydro resources registered in recent years, be it due to droughts or the increase in water consumption by a growing population. Brazil will continue to have most of its energy generated through renewable sources, like water, but it needs efficient forms of energy generation to ensure supply.

Given this outlook and warning against a possible supply deficit, the energy generation segment is reinforcing its structure through the use of thermal power plants. Projects of this type in Brazil are still mostly based on coal or diesel. An alternative to this scenario would be to modernize this model through gas plants, taking advantage of Brazil's large reserves.

A successful example of this format is the Mauá 3 Thermal Power Plant located in Manaus (AM), with a net energy capacity of 570 MW. With two Siemens SGT6-5000F4 gas turbines and one SST6-5000 steam turbine, the plant operates in combined cycle, with flexibility to operate in single cycle, whereby it stands out not only for the greater amount of energy generated by the two sources, but also from an environmental aspect, in view that the gas turbines utilize Ultra Low Nox (ULN) burners, which emit less nitrogen oxide in the atmosphere.

In 2018, reinforcing its versatility to service the energy generation sector, another Siemens highlight was its products that cater to the sugar and ethanol segment, an important field for biomass-based energy cogeneration. In this niche, in addition to supplying products to Brazilian customers, Siemens also occupied its plants with steam-turbine orders from countries like United States, Argentina and Bolivia.

### "

Brazil will continue to have an energy grid predominantly based on renewable sources, but the reduction in river water volume creates the need for reliable thermal generation sources. In addition to supplying products and solutions for power plants, Siemens has also established itself as an end supplier of energy. Today, Siemens is present in projects earmarked for supplying the power grid, as well as industrial projects where the supply of energy has become autonomous."

#### Armando Juliani

Power and Gas Division Director



### **Braskem**

As the largest producer of thermoplastic resins in the Americas, Braskem is implementing a major energy-efficiency project with high environmental gains at one of its main industrial plants in Brazil, Polo Petroquímico do ABC, in the Greater São Paulo region.

The project aims to utilize more efficiently the gas stemming from its industrial processes to modernize the plant with electrical motors that will substitute steam motors, also resulting in greater supply reliability of other vital loads at the plant, with low emissions in the process. This gas will be the fuel for generating energy and steam in a modern thermal cogeneration power plant.

Braskem analyzed the project under a model using own capital and an investment model using partners in the cogeneration plant. Siemens approached this opportunity in an innovative manner: through Guascor, a Siemens group company that specializes in distributed energy generation, it proposed investing directly in the construction, operation and maintenance of a plant with state-of-the-art Siemens technology. This model is known as Build, Own and Operate (BOO), in which the Capex required for the project is Siemens' responsibility.

In this new model, Braskem loans a property to Siemens, which builds and constructs the plant with two gas turbines in a redundancy-based configuration, that is, with the guarantee that there always be one equipment operating. With this, Braskem ensures the supply of gas and Siemens ensures the supply of energy and steam for a period of 15 years. In addition to the energy and steam required to function the plant, the project includes aspects of sustainability, from both an environmental perspective, through reduced emissions and water consumption and greater energy efficiency, as well as from a competitiveness and operational reliability perspective.

## Power Generation Services

Maintenance of energy-generation equipment evolved from the repair concept to prevention, ensuring productivity with downtime predictability. Siemens now leads a new paradigm break with the utilization of digitalization resources in maintenance.

The Power Generation Services Division provides all the experience of its teams and the resources of its structure to ensure the adequate functioning of equipment such as gas and steam turbines, compressors, generators, instrumentation and control systems, as well as systems specific to the oil and gas sector.

The area's performance in 2018 was positive in Brazil, especially due to its close association with the Power and Gas Division. The closing of big projects for new developments and modernization of facilities has led to important maintenance contracts for the Siemens team, particularly due to the perspective of guaranteed productivity.

This outlook has been reinforced by the maturing of the predictive maintenance concept. Today, with on-time monitoring, Siemens' customers can already determine the ideal periods for the maintenance of their machines, adding predictability to processes.

Digitalization resources introduced by Siemens in the segment have significantly contributed to maintenance processes. Plants located in remote locations today can already benefit from the use of proactive maintenance resources, such as vir-



tual goggles: Siemens technicians or teams from the client itself are now capable of registering real situations through the use of these glasses and compare them to available parameters. With this, the diagnosis and solving of problems gain speed and agility, contributing to improve productivity.

In addition to the maintenance of industrial plants and thermal power plants, the Power Generation Services Division also ensures the functioning of equipment used in energy cogeneration plants, especially biomass units, and also processes inherent to the oil and gas segment.



## 

Offering maintenance and modernization services in the energy generation market no longer suffices. Pressured by the need to continuously expand productivity, the sector demands solutions that offer companies greater predictability. Already consolidated as a provider of solutions for preventive and predictive processes, Siemens is now advancing in the field of digitalization associated with energy generation services."

Armando Juliani

Power Generation Services Division Director

### Digitalization in Power Generation Services

Minimized machine downtime, enhanced performance and optimized costs, thanks to the holistic maintenance of industrial plants: today this reality is already possible thanks to the intelligent maintenance approach offered by Siemens based on digitalization concepts.

One of Siemens' greatest competitive advantages is its huge installed base worldwide: practically one-quarter of the planet's energy generation capacity (more than 620 gigawatts) relies on Siemens equipment. These machines benefit from the services offered by Siemens, which means not only business volume, but also experience and reference for customers around the world.

With this knowledge base and digitalization resources, like virtual reality and use of robots, Siemens conceives intelligent maintenance plans for each customer based on the needs and reality of each plant, providing a comprehensive vision of the entire generation process. This concept begins with aspects like spare parts, repairs and modernizations and expands to the fields of training and even the provision of remote technicians for diagnostics and solutions in each location serviced.

## Future of Manufacturing

P. 28-32

The way things are manufactured in industry is undergoing a complete transformation. This change is so significant that several experts call this moment the Fourth Industrial Revolution, propelled mainly by digitalization.

In this highly disruptive moment in its history, Brazil is faced with a major opportunity: promote an unprecedented modernization of its industry. Maximizing speed, efficiency and flexibility, Brazil's industry, which is still crawling in terms of automation, could make a quantum leap in the modernization process of its factories.

The tools for this are concepts like Artificial Intelligence, Internet of Things and Big Data. Through its Digital Factory and Process Industries and Drives Divisions, Siemens presents four types of solutions: industrial software and automation, expansion of communication networks, safety, and specific industrial services for each customer.



Digital Factory



Process Indu and Drives





### **Digital Factory**

The incorporation of technologies that ensure greater speed, efficiency and quality in industry is already a reality at companies that adopt the Digital Enterprise concept.

At the foundation of this concept is the convergence of the real world with the virtual environment through a Digital Twin of the product, process, equipment and production performance. If, just a few years ago, these concepts seemed like perspectives for a future of greater productivity, today the market acknowledges the urgency of implementing the Digital Enterprise.

In 2018, Brazil's industry began to resume activities. Aware of the need to invest in resources that include digitalization to increase productivity, the sector allowed Siemens' Digital Factory area to make a significant leap, being recognized as a reference in solutions aligned with Industry 4.0. The main highlight resides in solutions generated through the co-creation process with customers, combining in an optimized manner the customer's knowledge of the business with solutions applicable to each one of them in the digital transformation process.

One of the most important solutions developed by Siemens in the digitalization universe is the MindSphere operating system. Through this platform based on the Internet of Things (IoT), it is possible to connect machines and physical infrastructures with the digital world, supplying data, analyses and applying Artificial Intelligence. All this can be converted into performance reports and other information that contribute to decision-making and can enable new business models.

Besides digital solutions, Siemens continues being a reference in Brazil and worldwide in terms of automation products and services, such as the Totally Integrated Automation Portal, an engineering platform that offers a comprehensive menu of functionalities, favoring lean production and increasing transparency of industrial processes. One of the most emblematic projects in this field in recent years was the modernization of Volkswagen's plant in São José dos Pinhais (PR), which combined Siemens teams from Brazil and Germany to implement automation and digitalization solutions.

In 2018, Siemens Brazil became a global reference of the organization in solutions for the animal-protein industry, leading to the creation of Siemens' first Center of Competence for Beef. This center offers specific technological solutions to customers in the meat, poultry and pork markets, aimed at improving traceability and process automation, with efficiency gains. The selection of Brazil to host the center, in addition to acknowledging the segment's importance to the country, is in line with the company's global strategy of leveraging business while also contributing to society's development.



The Digital Enterprises is already a reality in the world, incorporating digitalization solutions in the industrial environment to increase productivity and quality, and create customized products at scale. Brazil's industry has already come to the conclusion that heading in this direction is a mandatory decision to remain competitive in the global scenario and, by co-creating with its customers, Siemens' Digital Factory area acts as a catalyst in this process."

#### Pablo Fava

**Digital Factory Division Director** 

### Volkswagen

As a reference of modernity, efficiency and sustainability in productive processes, Volkswagen's manufacturing plant in São José dos Pinhais, in Paraná state, celebrated its 20th anniversary in 2018 and invested in a production modernization project to produce the T-Cross, the company's first SUV to be made in Brazil.

The plant was expanded by more than 5,500 m<sup>2</sup> and now benefits from digitalization solutions, in line with modern Industry 4.0 concepts.

The new production line was planned with a robust electrification and automation system, having been efficiently implemented through digitalization concepts like virtual commissioning. Siemens was the technological partner chosen to implement this new line, being responsible for the process known as matching, which is the automatic assembly of the car body with the engine and other associated components (powertrain), as well as implement the Volkswagen automation standard (VASS) in other processes, in partnership with original equipment manufacturers (OEMs).

## **Process Industries and Drives**

Recovery of Brazil's industrial sector necessarily involves boosting productivity, while adding volume and quality to processes.

It is with this aim that Siemens' Process Industries and Drives area focuses on supplying solutions for process automation, integrated movement systems, sensor systems and industrial engineering software. However, Siemens does not limit itself to supplying standardized products and software to the market, but rather begins working closely with its customers in phases well before implementation.

Co-creating solutions with customers is like a comprehensive consulting engagement, where the industry comes in with the knowledge of its own business and Siemens with the right high-performance solution to increase productivity, energy efficiency, data generation and storage, among others.

In terms of energy efficiency, for example, Siemens is capable

of analyzing the functioning of an industrial plant and propose solutions – such as frequency inverters –, which allow for savings of up to 50% in electricity consumption. With this, a return on investment in the short-term is ensured.

One of Siemens' most reputable solutions in the process industry is the COMOS software, a platform that connects an industrial plant's equipment and processes. With the COMOS platform, the industrial maintenance system incorporates several benefits: generation of standardized indicators in real time, parts purchase planning for preventive maintenance, complete inventory of all plant equipment, making it possible to establish preventive and predictive maintenance plans, seeking the root cause of problems, avoiding failures and predicting the useful life of components, as well as remote access through mobile equipment. In 2018, BASF's plant in Guaratinguetá (SP) underwent a revitalization process that included the implementation of COMOS, as well as a new operations control system.

#### GRI Indicators: 102-2 • 102-6 • 102-15 • 201-2 • 103-1 • 103-2 • 103-3 • 203-1 • 203-2



# "

In today's globalized world, the main stars in Brazil's industry are players that have achieved high levels of productivity, regardless of their location. To pursue this productivity is a strategic decision that requires a holistic analysis of the business, and Siemens stands as a true partner in this challenge. More than simply sell products, our objective is to co-create solutions with our customers."



#### **Pablo Fava**

Process Industries and Drives Division Director



### **Birla Carbon South America**

As the leading producer of carbon black (material produced from the combustion of oil products) in Brazil, Birla Carbon has two plants in the country and was looking to increase productivity and operating efficiency with the objective of increasing market share and maintaining leadership. It was clear that the answers would come from digital solutions, but how to do this, how to proceed and where to begin were challenges the company presented to its suppliers.

Siemens' response was not limited to only offering solutions; it comprised a Digitalization Master Plan based on an in-depth understanding of the customer's operation, co-creating solutions, an integrated and structured vision of actions and return on investment.

The client chose Siemens mainly for the added-value offered through this integrated business approach, with a potential return of improving product quality and plant availability, reducing reprocessing and increasing energy efficiency.

## Intelligent Infrastructure

P. 34-40

According to UN estimates, the population residing in cities is expected to reach 2.5 billion people by 2050. This number corresponds to roughly 70% of the world's population. Today, the urban population already represents 55% of the planet's inhabitants.

Living in large clusters offers a series of advantages: greater possibilities of development through education, infrastructure concentration to serve a greater number of people, among others. But it also poses a big list of challenges, such as the need to generate and distribute energy, provide quality transportation and ensure the safety and efficiency of buildings.

At least three of the 17 Sustainable Development Goals have a high impact on Siemens' business areas that target infrastructure: ensure sustainable and reliable energy for all (Goal 7), build resilient infrastructures (Goal 9), make cities more inclusive, safe, resilient and sustainable (Goal 11). Additionally, Goal 13 (take urgent action to combat climate change and its impacts) is addressed in several ways through our solutions that seek to reduce emissions and optimize natural resources.

Siemens' Energy Management, Mobility and Building Technologies Divisions offer products and solutions that focus on rational access to energy, intelligent building management, energy efficiency and safer and more convenient mobility for a population increasingly more concentrated in cities.



Energy Management



Mobility



Building Technologies



## **Energy Management**

A country that grows needs energy, and Siemens is committed to ensuring that this energy reaches every corner of Brazil.

The Energy Management area is present in all links of the energy chain, from generation to the distribution to households in Brazil. In Brazil, 2018 was marked by very important events, particularly in the transmission and distribution markets.

In the transmission segment, two energy auctions were a success, with all lots having been auctioned off with discounts of up to 50%, resulting in major investments in infrastructure projects and jobs nationwide. The strong presence of international investors underscores the Brazilian market's potential in the sector.

In this area, Siemens is the market leader, having been very successful in projects negotiated during 2018. Highlights include the partnership with ENGIE involving the company's first transmission-line project in Brazil. Siemens also promoted the HVDC energization of the transmission line that links the North region with southeastern Brazil, and was concluded three months ahead of schedule, ensuring performance and revenue anticipation for the customer.



The Brazilian market is increasingly welcoming digitalization concepts as major drivers of productivity in the energy chain. Capable of supplying products and services and, more than that, of co-creating new solutions with its customers, Siemens positions itself as an expert and innovator in the digitalization era applied to the energy chain."

Guilherme Mendonça Energy Management Division Director



The energy distribution market presented consolidation movements with ENEL's acquisition of AES Eletropaulo, becoming the country's largest energy distributor. The year was also marked by the auction of Grupo Eletrobrás distributors, which finally came off the paper. Additionally, the sector also registered a positive movement by distributors in the pursuit of digitalization solutions and investments, a very strong area of Siemens, which is recognized as a pioneer in the sector. Also, in 2018, the Iberdrola Group chose Siemens to carry out its Control and Operation Center project.

This trend of the market understanding more and more the importance of digitalization solutions creates excellent perspectives for Siemens in the sector. In 2018, several co-creation projects with our main customers helped us understand the point of view of their businesses. Jointly, we advanced in the development of digital solutions that are helping the energy sector become more agile, productive and safer. Project demand is so big that, in 2019, Siemens inaugurated its MindSphere Application Center (MAC), an area dedicated to developing digitalization projects in the energy area.

## **ENGIE**

As the largest private energy and solutions company in Brazil, ENGIE decided to participate for the first time in a transmission auction to further diversify its portfolio. In partnership with Siemens, the ENGIE Brazil Transmission Consortium won the biggest lot offered in the 2017 auction held by the National Energy Agency (ANEEL) - Lot 1 in Paraná state.

Siemens' experience in the segment was a success factor for the customer. One of the main challenges was to conceive a technical solution that allowed for the customer's participation and, for such, besides supplying equipment, Siemens acted as a consultant in the project.

This big lot that ENGIE won will represent a project to be executed over a period of 4 to 5 years. In this project, Siemens will supply five new substations and also modernize five others. Transformers, reactors, patio equipment, automation, control and telecom solutions will mostly come from the Jundiaí Industrial Complex (SP) and be installed in the state of Paraná. In this turnkey project, Siemens is responsible not only for the equipment, but also managing the entire project.

# Mobility

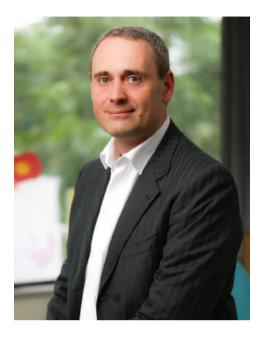


Siemens' Mobility Division offers a comprehensive portfolio of mobility solutions, such as electrification systems for railways and subway lines, multimode signaling systems, locomotives, digitalization software and services.

2018 exposed a harsh reality about Brazil's mobility environment. The truck drivers' strike in the first semester stressed the importance of investing in diversification, increasing the share of other transportation modes.

However, this topic is nothing new on Siemens' agenda. Over the last years, Siemens has helped foster the debate about this needed expansion, including in partnership with the Brazilian Corporate Council for Sustainable Development (CEBDS). A study by the entity shows that the implementation of a railway electrification system would yield many benefits for Brazil. Examples include the possibility that the railway generate its own energy and that it be shared with populations serviced by the railway. With this approach, railways would assume a broader role than simply cargo transportation, becoming true agents of social, environmental and economic development. In 2018, Brazilian sectors dedicated special attention to the theme. Brazil and Germany's Ministries of Transport signed a memorandum of understanding for cooperation between the two countries, with railway electrification being one of the themes to be worked on jointly. A delegation from the Brazilian government's Ground Transportation Agency visited InnoTrans, the premier trade fair dedicated to transportation in the world, and exchanged experiences with Siemens specialists at the event.

Siemens also stood out in Brazil's mobility market in 2018 with the award presented by Revista Ferroviária as the Best Manufacturer of Systems and Products – Power Supply, Overhead Network and Auxiliary. An important aspect of the award is the group of people who voted, composed of customers from the sector itself, attesting Siemens' high approval rating. Another indicator of Siemens' relevance in the sector was the invitation to events and lectures, such as the Brazilian Railroad Industry Association (ABIFER) forum in which the company shared experiences already tested and proven in both cargo and passenger transport.



## "

Diversifying transportation modes in Brazil is more than reducing the economy's dependence on the highway system. It provides advantages like lower gas emissions in the atmosphere, for example, with electrified railway systems. By advancing in this model, Brazil has the opportunity to define standards that can be adopted continentally, promoting the integration of countries and its businesses."

Andreas Facco Bonetti Mobility Division Director

## Railway line to Guarulhos International Airport

An ancient wish of the city of São Paulo became reality in 2018 with the inauguration of a railway connection to Guarulhos International Airport. Siemens Brazil won the invitation to bid to supply signaling technologies for the new lined by participating in the CTA - Train-Airport Connection Consortium together with Construtora Ferreira Guedes, which was responsible for installing the system.

Siemens supplied the signaling for the new line.

One of the main challenges of the project was time frame, in view that the new line crosses a bridge over the Ayrton Senna and Hélio Smidt highways, which was only concluded 30 days before the inauguration, forcing assembly, cable laying and equipment installation activities to be put on hold in this very short time frame.

The project reinforced Siemens' image as a reliable supplier of train signaling systems.



## **Building Technologies**

Building structures are among the biggest energy consumers in today's society. At the same time, they present huge potential for cost optimization through the adoption of energy-efficiency and fire-prevention solutions

Ensuring people's safety in buildings is one of the commitments of Siemens' Building Technologies area. The company offers fire-prevention solutions that can be installed in commercial and industrial installations of all sorts and sizes. In 2018, as a segment closely linked to the civil construction sector, the fire-prevention market experienced a period of negative impacts in Brazil.

However, perspectives for the following years are positive, especially as infrastructure segments begin to grow again. The Cerberus PRO is one of the main fire-prevention solutions in Siemens' portfolio. As a self-addressable system, it automatically identifies devices installed in a building, ensuring that all structures are functioning properly. But the Building Technologies area is not limited only to fire prevention. Automation systems based on sensors and software structures ensure the autonomous functioning of facilities like air-conditioning, ventilation, lighting and integration with other systems, such as access control, especially in commercial and services installations.

Through the bundling of various digitalization resources in its solutions, Building Technologies is not only a provider of equipment but also a true partner, including in the use of these resources as a way of optimizing expenses and, consequently, reducing costs, consolidating our goal of 'Creating Perfect Places'.





Offering fire-prevention and automation solutions, Siemens' Building Technologies area increases people's safety in buildings and helps companies use their resources in an optimal manner, reducing costs and directly impacting their bottom line."

#### Pablo Fava

**Building Technologies Division Director** 

## **Public healthcare in Pará**



Two hospital projects in Pará state, in the cities of lcoaraci and ltaituba, were concluded in 2014 to increase the population's access to healthcare. While the lcoaraci hospital is located in the Belém metropolitan region, the Itaituba unit is located 1,300 km from the state capital, along the Tapajós River.

There is one aspect that made the Itaituba hospital an even more challenging project: in addition to being in a remote location in the western part of the state, the hospital was conceived to be a regional hospital to service the population of small isolated cities and villages along the river. When the bid process was concluded for the two projects, the winning construction company Paulitec gathered a series of partners to execute the projects. Responsible for several systems in both hospitals, the company Virtsat chose Siemens to supply fire-detection and automation solutions.

Siemens supplied both hospitals with the Cerberus PRO fire detection and Apogee automation systems. Equipped with a series of batteries and backup mechanisms, the Cerberus PRO is guaranteed to function even in energy fluctuation and long blackout situations.

The Apogee automation solution allows for the autonomous operation of the air-conditioning, ventilation, and lighting systems and integration with other systems, such as access control. With exclusive digitalization resources, the two systems can be accessed by smartphone and tablet, while their data can be accessed remotely, allowing for them to be monitored and worked on.

## Society

P. 40-71

In a world increasingly impacted by megatrends like climate change, urbanization, demographic change, globalization and digitalization, society needs to increase people's wealth and quality of life, respecting the planet's limits.

To achieve these targets, United Nations member countries adopted the 2030 Agenda and its 17 Sustainable Development Goals (SDGs).

The SDGs guide the most important economic, social and environmental and governance changes and foster significant changes. This requires that governments, companies and civil society do their own part. As a global industrial conglomerate with business activities directly linked to people's quality of life, Siemens stands out in businesses that are (or will be) fundamental in achieving these goals.

#### These impacts can basically be generated by four factors:

- by our products and solutions;
- by the responsible operation of our businesses;
- by our specialization and leadership;
- by our corporate citizenship activities and engagement with communities.

This orientation is adopted globally by the company and has received recognition.



Dow Jones Sustainability Index 2018: Siemens worldwide was elected the most sustainable company in the world in its category, based on an analysis of three dimensions - Economic, Environmental and Social.



2018 Exame Sustainability Guide 2018: For the fourth consecutive year, Siemens Brazil was elected by the Exame Sustainability Guide the most sustainable company in the "Electric-Electronics" sector, with emphasis on its initiatives to combat corruption and medium and long-term education-support actions.



CDP Carbon Disclosure Project (CDP): The score attributed to Siemens in the most important climate-protection survey worldwide was an A in Climate Change and a B- in Water.

Corporate **Aniahts** 

Corporate Knights: The list that elects "clean capitalism" initiatives ranked Siemens #9 among 100 companies from various countries.

At Siemens, we are aware that the transformation in the way we live, produce and consume is a fundamental need to ensure the quality of life of future generations. We are also aware that by joining efforts we are paving the way that consolidates these transformations.

Siemens is globally committed to the commitment of reducing its emissions in half by 2020, and zeroing this amount by 2030.



# **Stakeholder Dialogue**

For us, it is clear that our actions have a direct relationship with various stakeholders, impacting and depending on these publics. As such, our strategy includes the pursuit of balance between all stakeholder interests.



Siemens' strategic agenda includes the relationship with our various stakeholders – employees, customers, suppliers, surrounding communities, representatives, entities, universities, among others. The objective is to mitigate risks inherent to our activities, as well as develop opportunities that serve society.

Siemens periodically consults these publics to build a relevance matrix that guides the company's actions based on the United Nations' Sustainable Development Goals. This procedure is already part of the Siemens Excellence System (SES), which means structuring, systematizing and revising these themes annually.

The entire Siemens Organization participates in the construction of the relevance matrix, not just the Sustainability area and business units, in a clear demonstration that all publics are fundamental for consolidating the company's corporate strategy.

## **Materiality Matrix**

In analyzing our impact on the Sustainable Development Goals (SDGs), we added a new perspective in our assessment of the most important issues for Siemens and confirmed our discoveries from previous materiality assessments. During this assessment process, 12 principles emerged from regular dialogue with internal and external stakeholders, defining priorities based on their importance for Siemens and its stakeholders. These principles reflect our ambition to contribute to society, as well as develop new business opportunities with our customers.

- Competitiveness of our customers with our products, solutions and services.
- Development of sustainability business opportunities with our customers.
- Environmental Portfolio for energy efficiency, save resources and reduce carbon emissions for our customers.
- Eco-efficiency in Environmental Management and Carbon Neutralization Program.
- High level of compliance and anticorruption, and promotion of integrity.
- > Code of Conduct in the production chain.
- > Management of project and reputation risks.
- Education Projects and partnership in Corporate Citizenship.
- > Human Rights and Diversity.
- > Employee Health and Safety.

These principles are the main declarations that describe how we implement sustainability at Siemens at the corporate level, in our businesses and regionally. The principles were discussed with our Sustainability Council and approved by our Board of Directors and Global Audit Council.

## Sustainability Governance at Siemens

#### Sustainability Governance at Siemens is a global effort integrated with our corporate culture and linked to Vision 2020+, which determines our company strategy.

All sustainability activities are headed by the Chief Sustainability Officer (CSO), who also leads the Siemens Sustainability Board (SSB), composed of representatives from the Managing Board, Divisions, countries and corporate areas. SSB is the steering committee for sustainability themes at Siemens. It meets on a quarterly basis to define sustainability actions as part of the corporate strategy.

Globally, sustainability actions are supported by a global management network at all company subsidiaries. This network coordinates the implementation of initiatives, programs and measures companywide. Brazil replicates the headquarters' structure with a Sustainability Committee composed of top-management executives from business units and corporate areas.

The Sustainability Office is a specialized team aimed at implementing global and local initiatives so that Siemens' businesses are always in line with society's demands.



#### Three pillars support Sustainability Governance:

## **Environmental Management**

In 2018, Siemens achieved important indicators from an environmental perspective, particularly in carbon neutralization and water consumption, having also significantly evolved in the assessment of customer project risks.

Siemens' environmental performance is measured through a series of indicators that have been perfected over the years, under governance of the Environmental Protection, Health Management and Safety (EHS) department. The self-awareness in relation to its own operations and its production chain allows the company to define action plans to mitigate risks and also advance in themes strategic for the company.

One such theme is the neutralization of carbon dioxide emissions. Based on a 2014 reference, the goal is to reduce emissions in half by 2020 and completely neutralize them by 2030. In Brazil, emission reductions amounted to 22% in 2018, situating the company in line with the company's global commitment.

Another positive indicator for 2018 was water consumption per employee, which amounted to 2.69 m<sup>3</sup> per month in the

period and is within the 2.75 m<sup>3</sup> target. This figure reflects the nature of Siemens' businesses, which plants utilize insignificant amounts of water in their production. Nonetheless, consistent efforts in operating efficiency have allowed reducing consumption of this important input.

Last year, processes of measuring volatile organic compound emissions (chemical organic compounds from oil byproducts) also evolved, as did the declaration of hazardous substances present in the production chain. This last process achieved considerable progress in the Santa Bárbara D'Oeste (SP) operation, motivated in part by the significant amount of products exported by this plant, complying with specific legislation regarding this item.

On the path towards obtaining even better results in terms of reducing energy consumption, the company established a dedicated workgroup for this topic, focusing mainly on operations at the Jundiaí Industrial Complex (SP) and with the objective of obtaining ISO 50001 energy management certification. Another theme addressed in this field is distributed generation, advancing in studies so that the company can benefit from inputs stemming from its own operation to generate energy and reduce reliance on the external grid.

# Responsibility beyond the company's walls

The activities of a company are not limited to operations it executes within its own installations. In Siemens' case, which focuses primarily on the execution of projects, responsibility extends through a comprehensive network of partners and suppliers. Monitoring processes in this network is not just about service quality and delivery term. Environmental, social, human and regulatory implications must also be considered. And more: they must be assessed from a risk perspective and duly mitigated. In 2018, Siemens consolidated the EHS initiative in Projects, incorporating a thorough environmental, health and safety assessment in all stages of projects executed by the company. In addition to the main objective – to avoid events that cause damage to the environment and/or employees –, the initiative also became an important tool for reducing costs, in view that this preventive approach allowed saving money in terms of hospital care, material expenses resulting from accidents, indemnifications, lawsuits and fines.

## **Supplier Management**



Siemens' relationships with its suppliers are part of Supply Chain Management (SCM), which defines and disseminates purchasing policies with the objective of ensuring business transparency and efficiency.

In 2018, the Supply Chain Management (SCM) area made relevant changes to the area's processes, always with a focus on improving business to ensure sustainability through our operating efficiency and helping Siemens be an option for customers and partners.

One such change was to separate Supply Quality Management (SQM), which was part of the Siemens Excellence System (SES), and make it independent. The SQM area is responsible for implementing and continually monitoring initiatives targeted at process excellence, involving internal areas (production and administration) and their suppliers, based on a comprehensive vision of the company's entire operation. Through this synergy, the goal is to increase cooperation and efficiency, resulting in savings for the company and, especially, in satisfying conditions globally established by Siemens. All company suppliers are required to adhere and comply with the "Code of Conduct for Business Partners and Suppliers".

An important action carried out was a series of initiatives with suppliers with a focus on the needs of our end customers. At an event that included the participation of Siemens Brazil's President and CEO André Clark, a group of strategic suppliers met to reflect on the need to perceive business from the perspective of customers, expanding their vision of the entire process. Besides the SCM area, the Compliance and Environmental Protection, Health Management and Safety department also participated. The main objectives of this type of meeting, programmed to continue throughout 2019, are to maintain open dialogue, promote alignment of actions and, above all, head in the same direction of our customers' demands.

## Siemens Excellence System

The objectives and goals of the company in Brazil and its global strategy are monitored through a management system that prioritizes stakeholder interests

The Siemens Excellence System (SES) has become the mechanism to satisfy the demands of all company stake-holders – customers, employees, suppliers, entities, communities, among others. In alignment with Siemens Brazil's objectives and goals and Vision 2020+ (more on page 7), the Siemens Excellence System was inspired by the National Quality Foundation's Management Excellence Model (MEG).

In 2018, the company updated the Siemens Excellence System Policy (see box), defining this integrated and interconnected management system and the items it contemplates.

One of the topics addressed by SES is the monitoring of the continuous improvement of Siemens' operations in Brazil. The system includes Quality, Environment, Occupational Health & Safety certification processes. In 2018, the company migrated its ISO 9001 (Quality) and ISO 14,001 (Environment) certifications to the 2015 versions, having been recertified in both. The company again received OHSAS (Organizational Health and Safety) certification, but in its previous version. The Siemens Excellence System reports that the objectives and goals defined for 2018, organized into 10 pillars, were mostly achieved. Examples:

<b>Pillar</b> Be the employer of choice	<b>Objective</b> Rank among Guia Você S.A.'s best companies to work	<b>Result</b> Included in the ranking again
Increase environmental efficiency	50% less emissions by 2020	-22% so far
Promote social transformation	10% employee engagement as volunteers	11% of employees participating as volunteers
Be the trade partner of choice	55% of promoters in the NPS* index	54% of promoters in the NPS* index
Ensure business sustainability through operating efficiency	3% increase in productivity	3.1% increase in productivity
	* NPS: Net Promoter Score – is a survey conducted with customers asking them how likely would they recommend Siemens to a friend or colleague. Subtracting the percentage of Detractors from the Per- centage of Promoters yields the Net Promoter Score. Even though we did not achieve the target, the result obtained in 2018 is an im- provement in relation to the previous year, and the score has been	

rising since 2014.

For 2019, the group of initiatives was condensed into seven transformation programs, promoting an expanded vision of the continuous improvement theme, with a focus on relevant society demands:

CRM Excellence Increase the amount of time invested in customers Improve customer relations by optimizing internal processes and increasing the amount of time invested in these customers	Neutralize CO2 emissions in Brazil Neutralize Siemens' CO2 emissions in Brazil in accordance with the GHG protocol	Digital Enterprise Adopt digitalization in our own operations
Diversity	Capacity Utilization Project (CUP)	Project TT
Strengthen diversity in four pillars: race, gender, people with disabilities and LGBTI+	Productivity initiatives to boost our capacity	Define key indicators to analyze our organizational performance
	Improve processes relat	ed to customer relations, such as lead

Lead Management

Improve processes related to customer relations, such as lead management, customer interface portals using analytics and robots, feedback from customer care centers, etc.

## Siemens Excellence System Policy

Siemens' proposition is to make real what matters for Brazil, establishing the benchmark on how to electrify, automate and digitalize the world. Driven by ingenuity and innovation to improve people's lives, the company targets sustainable growth, benefiting society and the planet, serving customers and delivering results to shareholders.

The company pursues a broad and ethical presence in the market, centered around customer needs. For such, Siemens Brazil and its subsidiaries, in conformity with legal and corporate requirements, established an integrated and interconnected management system, the Siemens Excellence System (SES), contemplating:

- value-added that satisfies the expectations and requirements of customers in each stage of our processes;
- talent capturing, with Siemens being the employer of choice of professionals that make the organization dynamic and capable of keeping up with the market's transformations;

- definition of objectives, goals, priorities, programs and action plans targeted at stakeholder requirements;
- creation of systematic monitoring, control and improvement mechanisms that ensure the continuous improvement of the organization's performance;
- identification, assessment and mitigation of risks inherent to our activities, as well as crisis management;
- Promote environmental protection, occupational health & safety and prevent occupational diseases.

Through an entrepreneurial vision and internal and external engagement of leaders, reliability, accountability, quality and innovation, Siemens delivers increased value through its solutions, services and products. With this, it commits to following these principles and the policy within the scope of its activities in Brazil.

# **Compliance System**

Corruption diverts resources that should be invested in health, education and safety. Therefore, corruption is a topic that needs to mobilize all of society, including companies. Siemens formalizes its involvement with this matter through its Compliance System. Additionally, it aligns this topic in consonance with the United Nations' 17 Sustainable Development Goals.

The culture of combating corruption at Siemens extends beyond the actions of an internal department. It is present in the way we work with our customers, suppliers and other publics, ensuring that we only do business according to ethical and transparent practices.

## Siemens' Compliance System is based on three pillars:

**Prevent** – policies and procedures, training and a clear and direct communication system. In 2018, more than three thousand people were trained (internal and external public)

**Detect** – audits, investigations, controls and reporting channels, including anonymous reporting 0800 892 4041 (Tell Us).

**Respond** – mechanisms to clarify reports and application of sanctions in alignment with labor laws to punish compliance violations internally, regardless of hierarchy, according to how severe the violation is.

In June 2018, as part of reinforcement actions for this topic, the company held its Compliance Week event again. Two activities involved the entire work force.

The Ethics Dispute quiz was broken down into five themes, one for each day of the week: conflicts of interest, data privacy, harassment, diversity and fraud. For the participants who got all the answers right, there was a prize drawing in each region.



Marcela Vitti Compliance Officer

Another activity was the Fair Play Action, which invited employees from all over Brazil to produce videos of up to 30 seconds explaining how they contribute to Fair Play at Siemens.

In 2018, an action was also carried out to increase the engagement of Siemens stakeholders with the Compliance theme. An event with strategic suppliers in the civil construction and transportation sectors addressed key Supply Chain Management themes, as well as Compliance and Environment, Health and Safety (EHS) topics.

#### **Human Rights**

In 2018, Siemens expanded its efforts to ensure human rights by adding the theme to its risk assessment of new projects, foreseeing mitigation actions even before reaching the offer stage. At Siemens, governance of the human rights theme is under the Sustainability area's responsibility.

#### **Collective actions**

Siemens believes its fundamental to exchange experiences about transparency and ethics practices with other partners. For such, it maintains initiatives such as monthly best-practice meetings to show its Compliance System and exchange ideas on the topic.

#### **Internal Actions**

- Meetings and events with suppliers and customers, organized by the business areas.
- Compliance best-practice meetings: special meetings in which Siemens' Compliance department receives other companies wishing to learn about the company's Compliance System. The best-practice visits have been going on since 2011 and been in high demand.
- EduComÉtica social action Ethics and citizenship game for children between the ages of 10 and 16. It is part of Siemens volunteering and receives support from other companies in applying the game at schools.

#### International Corruption-Combating Day

As a member of Alliance for Integrity, Siemens joined other companies and entities that, on December 10, divulged their corruption-combating activities using the hashtag #AliadosPelaIntegridade. For the 2018 edition, Siemens invited all its employees to share a photo on social networks with the hashtag used this year.

#### **Tools**

Violations or suspicions of misconduct with Siemens' involvement can be reported by any person, with complete transparency. The box on the right lists some of the channels.

#### **External Actions**

International Chamber of Commerce (ICC): André Clark, President and CEO of Siemens Brazil, and Marcela Vitti, Compliance Officer, are part of the Anticorruption Committee.

**Brazil Network of the United Nations Global Pact**: anticorruption and communication work group – participation in the UN's Sustainable Development Goals (SDGs) campaign on Siemens social networks.

Alliance For Integrity (GIZ): Work group to strengthen integrity in Small and Medium Enterprises (SMEs).

International Transparency: disclosure of the Transparency Index.

**Ethos Institute:** Integrity work group – signing of the Integrity Pact and development of material and guides on Compliance.

Brazil-Germany Chamber of Commerce and Industry (AHK): ethics work group (meetings about Compliance).

Brazilian Association of Infrastructure and Base Industries (ABDIB): discussions about the Integrity Pact.

Brazilian Petroleum Institute (IBP): Compliance Committee – signing of the Integrity Pact and participation in the Compliance Good Practices Guide, at the Oil, Gas and Compliance Forum event.

Brazilian Corporate Communications Association (ABERJE): meetings about Compliance communication.

#### Tell Us

Siemens' anonymous reporting tool available 24x7. Controlled by an independent Siemens structure. System in 13 languages.

Access: 0800 892 4041 Website: https://www.siemens.com.br/tellus

# Integrity

All Siemens' businesses are built based on integrity. Over the past years, the company established and consolidated a robust system of regulations that attests its transparency and ethics in business. Within this context, the Legal department, together with the Compliance area, are responsible for the governance of this system, but the area's work transcends this role, acting as a genuine business partner, supporting the company in executing its strategy.

Siemens' vision of the future projects a company focused on technological solutions that help increase efficiency and productivity in a sustainable manner. The Legal department's actions are planned and executed in order to help achieve this vision, acting as a partner and ambassador in and outside the organization.

Permeating all business areas of the company, digitalization resources will function more and more as key drivers of this efficiency-productivity binomial. Together with this important tool comes another fundamental theme for managing the business, now and in the future: cybersecurity.

In this field, the Legal area also becomes indispensable for mitigating financial and image risks eventually caused by the traffic of data in the virtual environment. In 2018, Siemens was one of the signatories of the first



Luis Mosquera Legal Director



Charter of Trust to promote cybersecurity. The Charter establishes the obligatory rules and regulations to generate trust and advance with the digitalization of companies and countries.

In 2018, Siemens Brazil's Legal department consolidated its reorganization process that was implemented the year before. With a structure even more aligned with the company's business areas, the sector ended the year with positive indicators, such as the increase in lawsuits terminated and reduction in lawsuits filed. Greater proximity with the Project Management area also led to a significant reduction (of more than 85%) in legal claims, thanks to a better understanding of the nature of each project.

2018 also marked the conclusion of the Administrative Council of Economic Defense's (CADE) analysis of reports related to eventual anticompetitive misconduct in the metro-subway sector, proactively submitted by Siemens, which obtained immunity in the process thanks to a leniency agreement.

Over the next years, the area's challenge – as that of the entire company – is to further advance in the objectives proposed by Vision 2020+. In order to "raise the bar", the Legal department will continue even more aligned with the business areas, as a partner always focused on the continuous improvement of its team and its processes.



# **Internal Public**

## **Policies and benefits**

To feel like the owner of the company is the foundation of Siemens' Ownership Culture and this reality is not limited to the attitude we expect from our teams. Our company effectively has, among its employees, an active part of its shareholders. In 2018, in an unprecedented initiative, Siemens distributed shares to its employees all over the world, as a means of sharing the company's earnings through a Profit Sharing program. To receive the benefit, all an employee had to do was join Siemens' stock program. In Brazil, 98% of employees joined the program.

#### **Profit Sharing**

Shares are distributed by Siemens AG whenever the profit-sharing pool reaches US\$400 million.

razil: 98% of employees bined the program

The company has had a stock purchase program for many years. In the Share Matching Program, employees can purchase Siemens shares and, for every three shares held for three years, Siemens adds an extra one. In 2016, 5% of the employees in Brazil opted to join the share matching program. In 2017, this figure increased to 12%, proving the considerable interest of our work force to also own a piece of Siemens.



Implemented by Siemens Brazil several years ago, the 180 days of maternity leave benefit also continued in 2018, being rated as one of the key factors for roughly 90% of female employees in the company to continue working after returning from their maternity leave. In 2018, Siemens employees also received an extended paternity leave of 20 days as of the child's birth.

Another benefit is the OB/GYN service offered at the Anhanguera (SP) site, where employees receive regular checkups including prenatal. Additionally, the company also offers the option to reimburse nursery or nanny expenses until children turn two years old (more in Diversity). For several years, Siemens has offered eyecare allowance, which benefits almost 20% of employees, reimbursing the cost of lenses, including contact lenses (every 24 months), and frames (every 48 months).

At present, PreviSiemens has 7,500 participants (active, retired and associated) and a net worth of R\$1.5 billion.

Created 30 years ago, PreviSiemens is a private pension fund which mission is to complement the retirement income of its members and is considered one of the main benefits Siemens offers its employees. PreviSiemens offers three plan options (Defined Contribution, Basic and Supplementary).

> Sylmara Requena HR Director

An important detail about PreviSiemens is that it maintained its net worth, even after the Siemens structure change which led to the separation of some of its businesses into independent companies, as was the case with the Healthcare area. Such fact attests the high level of confidence on the part of Siemens' employees to maintain and increase their financial investments in the institution.

In 2018, PreviSiemens participants consolidated their options in relation to the Investment Profiles created the year before to provide greater autonomy in choosing the most appropriate one for their moment in life or risk level they wish to incur (Conservative, Moderate or Aggressive profiles).



# **Diversity**



In 2018, one of the main actions for promoting this theme was the creation of a Diversity Committee. Implemented at the company's top management level, the committee was structured into four work groups, each one dedicated to a theme and supported by a company director, as sponsor of the actions.

## DiverSifica Committee



Even though implemented at the top-management level, the committee's objective is to support actions to be developed and implemented by the entire workforce, fostering employee engagement in the work groups, regardless of whether they belong to any of them.

In 2018, as a consequence of one of the initiatives by the group catering to gender actions, the Anhanguera (SP) and Jundiaí (SP) units inaugurated a milk bank for breast-feeding moms to draw and store milk. Another initiative this year was extension of the paternity-leave period: in addition to the five days established by law, Siemens employees can opt for a leave period of up to 20 days, benefiting from a course aimed at helping dads prepare for the new tasks of fatherhood.

Since 2017, Siemens celebrates the International Day Against Homophobia.

Broadening the array of benefits in this field, in 2019 Siemens introduced Parental Leave for employees that decide to have children through surrogacy (an assisted reproduction process in which embryos are transferred to the uterus of a temporary donor). Siemens is one of the few companies in Brazil to offer this type of leave, also giving the employee responsible for the child the right to a daycare or nanny allowance.

## **Education and training**



In 2018, Siemens invested roughly R\$4 million in education and training.

#### In addition to offering various technical and behavioral training programs, Siemens also focused on building digitalization and sales skills.

One of the highlights of 2018 was the Applying Digitalization to Our Business course, known internally as ADB. It is based on a challenge – if we wish to be recognized as a company that supplies digital solutions to our customers, then the company's sales force must increase its skills in this area. ADB also deep dives in demystifying certain themes related to digitalization and advance in the co-creation concept. One of the main advantages of this program is the possibility of having mixed classes with the participation of Siemens employees and customers, leveraging new digitalization business opportunities.

The education and training area in Brazil benefits from the Learning Campus global structure, which contains training content, acting as a link between the HR area and the business and back-office areas. Hosted on the Siemens Internet, the content allows employees to have contact with the themes available and plan their professional development together with their manager.

Another training structure is the School of Leaders, which was created in Brazil with the objective of perfecting the company's management capabilities, preparing the leadership pipeline. Each leader possesses as a plan three disciplines per year, over a three-year period, concluding their training with a total of nine disciplines.

## Labor relations

Siemens' Labor Relations area works to ensure compliance with legislation, respecting employee rights and mitigating the possibility of wear, costs and social losses from lawsuits. In 2018, the sector consolidated changes incorporated after the labor reform, in effect in Brazil since the end of 2017.

One of the changes promoted by the new legislation is inclusion of the home-office system in which employees carry out their functions partially or fully from their own home. Due to this change, the Labor Relations area updated the home-office policy to comply with the new law. Also due to the labor reform, the dismissal by mutual agreement policy was established in which the company and the employee sign an agreement to rescind a labor contract. With regards to the number of new labor suits, at the end of 2018 the company registered a 30% reduction.

The sector also implemented a comprehensive voluntary dismissal program at the Manaus (AM) unit that resulted for the first time in all employees adhering to the program. With superior benefits than legally required, the program offered additional indemnification to all employees dismissed and also provided greater legal assurance to the company.

Recognized for its proactive attitude in its relations with labor unions, Siemens maintained in 2018 this type of initiative, and several union agreements were signed to contribute to the results of areas involved, without compromising the labor rights of employees.



# **Climate and motivation**



#### In 2018, for the 11th time, Siemens ranked among "The 150 Best Companies to Work", published by Guia Você S/A.

Conducted annually, the survey is mainly based on interviews with employees from participating companies. These interviews are done by the magazine's own staff in a random and anonymous manner.

The process starts out with online questionnaires where employees manifest their perceptions about the work environment, benefits, professional development opportunities and other aspects. After this phase, upon reaching a minimum engagement percentage of employees, journalists contracted by the magazine visit the company and conduct in-person interviews with employees selected randomly. In 2018, Siemens was also ranked among "Best Companies to Begin a Career", which as of this edition is now done together with Guia Você S/A's "Best Companies to Work" survey.

An attractive practice, highly valued by Siemens employees and the market, is our home-office policy, which allows most company employees to work one or two days per week from their home. An online communication system allows employees to perform their functions, participate in meetings and other tasks, without the need to daily drive to their work location. In the Guia Você S/A "150 Best Places to Work", this practice is frequently mentioned as a key factor in the attraction and retention of employees.

# Culture and leadership development

One of Siemens' strategic pillars is the Ownership Culture. Through it, we encourage and expect each employee to act as the owner of the company, and this also reflects in the way how employees are evaluated and developed at Siemens.

In the specific case of leaders, this vision implies not only in what the professional and its teams accomplished, but also how their goals were achieved. At Siemens, the result is not limited only to the number obtained, but also – and especially – the sustainable manner how the objective was achieved.

Professional development at Siemens follows the Own Your Career concept. In it, the company acts as a facilitator in the development of each employee, offering a wide array of training programs, job rotations and other professional development tools. It is up to the employees, together with their manager, to align the best career design for themselves and seek support in the company's development tools.

Leadership development follows the Succession Pipeline concept. The objective is to plan the organization's future based

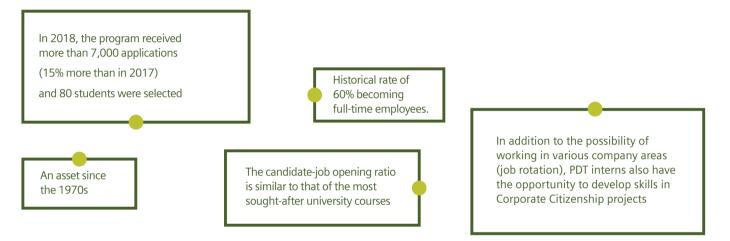
Through the use of digitalization tools, Siemens offers a comprehensive vision of its organizational structure. By simply accessing the Siemens Organization Cosmos (SOC) platform, employees gain access to colleague profiles, the company's organizational chart, view job openings of interest and other features. on the skills necessary to do business in the future. Based on this plan, the organization shapes its development programs. This includes attracting young professionals being formed, with a focus on future leaders, to pursuing talents in the market, including the development of Siemens employees.



# **Talent attraction**

Talent attraction actions at Siemens are consistently aligned with the future of work concept. This means not only using digitalization tools that cater to these professionals – but also the increasing use of social media as a communication vehicle –, but also seeking people in the market that align with the concept of "future makers".

One of the main talent attraction tools in the company is the traditional Talent Development Program (PDT). More than an internship program, PDC is a professional development tool that has existed for more than 30 years and is very valuable for the company.



Also created for developing future leaders, the Trainee Program identifies young professionals with a leadership profile among company employees. The main objective of this group is to develop projects with an impact for the company, generating results. Additionally, all members of the program undergo training and activities focused on the development of their careers, including Leadership and Influence training at Babson University in the United States.

#### **Training Program 2018**

#### 5x1

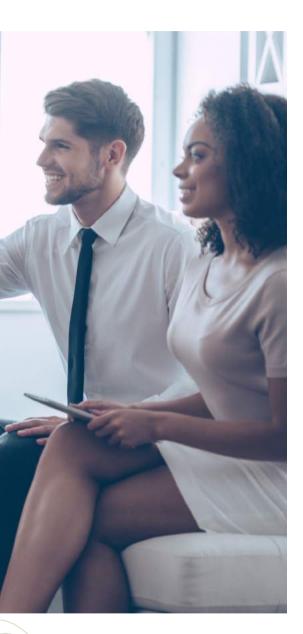
Of the youngsters selected for the 2018 edition of the Trainee Program there were five women and one man. The result did not count on any special impulse; it simply followed the normal stages of the process.



# **Future Makers**

We want to be an employer desired by the best professionals, regardless of their gender, specialization, ethnic background, sexual orientation and many other variables. Actions in this initiative were conceived under the concept of "Future Makers", divulged in social media, targeting students earning a degree particularly in engineering and technology.





### Professionals interested in building the future, making a difference in people's lives.

#### Initiative

Siemens Women Experience: during the Siemens Forum, the company's main annual event for customers, 20 female engineering students came into contact with the Siemens universe and everything that the company offers to develop careers focused on innovation, strategic topics for Brazil, such as the oil and gas market, Industry 4.0, decentralized energy, etc.

The students met with CEO André Clark, global officers Lisa Davis and Eva Schulz-Kamm, and HR director Sylmara Requena, having also participated in an Innovation Laboratory where they were challenged to propose a new business model for the oil and gas sector based on Siemens' technologies. The winners participated in a "shadow day" (a practice in which they get to experience the day-to-day of a professional) with André Clark.

#### Future Talks+

A forum open to the public to discuss the challenges of inclusion and their impact on innovation, under the theme "More Diversity, More Innovation". The event included simultaneous translation in sign language and was transmitted on Siemens' social network pages.

#### **Siemens Connection**

A 3-day immersion into the Siemens universe, for roughly 40 university students from all over the country interested in themes like Digitalization and Industry 4.0. The program included one day at the Jundiaí Industrial Complex (SP) and two days at the Anhanguera (SP) unit. The objective of Siemens Connection was to present youngsters the main trends related to Industry 4.0 and Siemens' relationship with them, showing that our company is an innovation pole that offers an open and flexible environment for professionals to develop their career and create technologies that make society advance.

## **Occupational Health & Safety**



## With a consolidated health and safety culture, Siemens' challenge resides in increasing the focus on quality of life.

The Occupational Health & Safety programs at Siemens are part of a structure that also oversees environmental policies, with three pillars bundled in the Environmental Protection, Health Management and Safety (EHS) area. The global behavioral safety program Zero Harm Culture@Siemens guides the company's actions with the objective of achieving a zero-accident rate, improving the quality of work for everyone in the company. This concern is not limited to the company's employees, being also disseminated among suppliers, service providers and partners, including those working with Siemens in projects outside company units. In 2018, a meeting with strategic suppliers aimed to, among other objectives, reinforce safety, health and environmental protection concepts with these partners (more on page 50).

#### EHS as a strategic tool

Working in a safe manner helps the company business. One example is the savings obtained by paying a lower Accident Prevention Factor (FAP)

Attraction of customers and potential customers through good EHS practices

Best practices in the market: gains for the company's image Holistic vision of projects, reducing risks and expenses with nonconformities (more on page 46) The work of the EHS area is inserted in the company strategy also as an added-value for business. Results are achieved in several ways: one of them is the savings obtained from paying a lower Accident Prevention Factor (FAP), thanks to the company's small number of occupational safety incidents (three accidents with leave companywide in 2018, the same number registered in 2017). But these results also appear in the form of approximation with customers and potential customers, attracted by Siemens' good practices already consolidated in the market.

In 2018, for example, the Brazilian Corporate Council of Sustainable Development (CEBDS) presented Siemens through its EHS manager Roberta Carneiro, the female leadership award for reducing the number of labor-related accidents. The EHS in Projects initiative also obtained international recognition, having been selected for the Werner von Siemens Award. This award is presented by the company's global headquarters for projects all over the world. In the local version of the award in Brazil, this initiative was the winning initiative.

Another achievement in 2018 was the consolidation of the Essential Safety Elements. Aware that a considerable number of accidents occur precisely due to nonobservance of basic cautions, the company reinforced the theme. The initiative does not refer to a sporadic action, but rather a reinforcement of several initiatives that already exist at Siemens, the objective of which is to join forces to reduce serious incidents and achieve the planned zero-accident goal.

## Accidents with leave (Siemens employees)



#### **Occupational Health & Safety**

In 2018, the company also worked on reinforcing its Emergency Situation Action Plan (PASE), restating the need to know what actions to take in emergency situations and to report any type of occurrence, even if solved, so that the EHS area can analyze what happened and implement measures so they do not occur again.

Siemens also held its Internal Environmental and Occupational Accident Prevention Week (SIPATMA), which it does every year, and this time focused on the importance of each colleague's attitude to ensure the collective safety of everyone. In 2018, SIPATMA was divided into five different moments, each one being addressed one day of the week: caring for hands and fingers; waste; psychosocial risk; vehicle safety; and health, safety and environment in the family.

Specific actions for health occur on a continuous basis at Siemens and are headed, more and more, towards the quality-of-life concept, addressing care in an integrated manner. The objective is to provide healthcare to the employee and its family



in the most optimized manner possible, contributing so that the entire health system is used in a rational manner.

In 2018, Siemens was once again audited by the Healthy@Siemens certification process, which analyzes the quality of actions developed by company subsidiaries. In 2015, Siemens Brazil was the first unit in Latin America to receive this certification. In 2018, the Brazilian subsidiary was the first in the world to be recertified.

One of the company's initiatives is the Perspective Program, targeted at employees that already initiated their retirement plans, offering lectures about personal finances, opportunities, development of skills, etc.

Siemens also maintains the skin cancer prevention program – "Save Your Skin" – with the presence of a dermatologist who provides free consults to employees at the Anhanguera (SP), Jundiaí (SP) and Cabreúva (SP) units. In 2018, 428 employees were attended and treated for occurrences. The company also maintained its program to combat smoking, earmarked for employees who intend to quit smoking, recommending customized treatments according to each case.

The company's Mental Health Program, which is based on an online platform, also continued in 2018, offering information about mental diseases through files that can be printed or shared. The occupational exam also provides a form about mental health, which may indicate the need for treatment. In such cases, the employee can be referred to a psychologist or psychiatrist. All employees who underwent an admission or periodic exam in 2018 filled out the questionnaire. As is done every year, the flu vaccination campaign touched 2,990 employees who were immunized free of charge, and another 2,175 family members who were vaccinated for a fraction of the real cost.

In 2018, Health Week addressed themes such as anxiety and the benefits of music for people's health, and included special sessions of workplace exercises at all plants and the administrative areas at Anhanguera (SP), Jundiaí (SP) and Cabreúva (SP). It also offered bioimpedance tests for employees to learn their body water, muscle mass and body fat composition. Relaxing massages were also programmed at various times, as well as suggestions for relaxing and avoiding discomfort in the workplace. Another activity of great interest was the label booth, where employees learn to interpret food labels, and discover which are truly healthy.

A program implemented in 2017 continues to yield benefits for Siemens employees: #challengeaccepted encourages employees to reduce body fat and increase levels of good cholesterol. To gain even more participation of colleagues, the Health area implemented a competition of teams.



#### **#challengeaccepted**

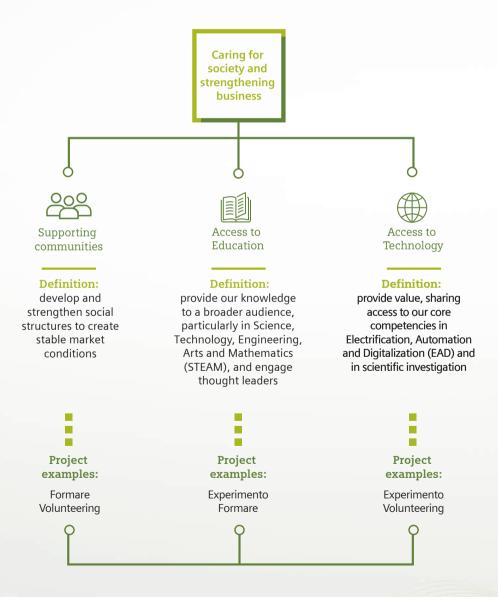
Another initiative with a high approval rate was also maintained: expecting mothers who receive prenatal care at the Anhanguera unit. In 2018, 147 consults were performed. Aligned with this concept, Nest initiative involves men and women in monthly meetings to plan the pregnancy and delivery of babies, with advice from specialists in Nutrition, Psychology, Obstetrics and Physical Education.

Another program maintained in 2018 was the Defensive Driving course for employees who drive motorcycles, as well as employees who need to drive company vehicles to carry out their functions. Theory and hands-on courses reinforce the importance of a responsible attitude in traffic with the objective of avoiding accidents.

# **Corporate Citizenship**

The social projects developed and supported by Siemens aim to improve education in Brazil. The efforts of these initiatives are planned for results to be harvested in the medium and long-term. This option depicts not only the careful selection of actions that effectively promote a transformation, but also the company's long-term commitment with the projects themselves.

Social commitment - improve education in Brazil



# Volunteering

## Achievements in 2018



of employees participating as volunteers



in 10 states: Brasília (DF), Curitiba (PR), Recife (PE), Cabreúva (SP), Belo Horizonte (MG), Joinville (SC), Salvador (BA), Rio de Janeiro (RJ), Canoas (RS), Jundiaí (SP), Anhanguera (SP) and Manaus (AM).



beneficiaries

#### Impact: Value for Society Value for Siemens

The social impacts of social projects managed by Siemens are measured according to international methodologies according to the input/output – income/outcome concept.

Program Formare applied a tool developed by the Emerging Market Multinationals Network (EMM Network) in partnership with FGV's Center of Sustainability Studies (GVces), which allowed calculating the program's return on investment (ROI). According to the study, Siemens obtained a revenue increase of R\$270 thousand, considering talent retention, volunteer training and work-hours dedicated by youngsters in the program.

## **SIEMENS** | Fundação



Our Vision Be recognized as an example of social transformation agent in Brazil.



## **Our Mission**

Contribute to the country's development through initiatives aimed at improving the education system and fostering the utilization of innovative basic technologies.



Formare School: A professional learning program for high school students from low income families. In addition to the local coordination responsible for Formare School at Siemens, company employees volunteer their time presenting lectures and have their hours donated by Siemens. Originally implemented at the Jundiaí Industrial Complex (SP) in 2017, the program was also extended to the Manaus (AM) unit. In June 2018, when the Manaus factory stopped operating, the program was taken over by the current managing company. In 2018, the curriculum offered to students was the Administrative Assistant course.

#### Achievements in 2018

- > Partnerships with Fundação lochpe, Departments of Education and Social Welfare
- > 97% of volunteer educators stated they had the opportunity to personally develop
- > 100% said they are proud to work at Siemens for investing in the program

#### Impacts in 2018

- > 79 volunteer employees
- 1 city impacted Jundiaí
- > 3,100 hours donated
- > 17 youngsters trained



Program Experimento: With a methodology developed in Germany by Siemens Stiftung in conjunction with NGO Casa do Pequeno Cientista, Program Experimento is applied in Brazil to increase knowledge about Science, Technology, Engineering, Art and Mathematics (STEAM) among elementary and middle school students. The project is based on the principle of learning through investigation and has school educators as allies of this transformation.

Siemens Fundação 71

#### Achievements in 2018

In 2018, Program Experimento obtained important achievements in Brazil, thanks to the partnerships that increased its presence, such as with Siemens Stiftung, BASF, Instituto Sabin, Fiat Chrysler Automóveis Brasil (FCA), City of São Paulo, City of Jundiaí, City of Juquitiba, UNESCO Associated Schools, Instituto Ayrton Senna, Colégio Visconde de Porto Seguro, Educação Metodista, Instituto Qualidade no Ensino and Escola de Inventor.

#### Impacts in 2018

- > 83 cities in 16 states
- > 152 thousand children impacted
- > 2 thousand professors trained

## **Awards and Recognition**

In 2018, several publications, companies and entities dedicated their recognition to Siemens:



#### **Exame Sustainability Guide**

For the 4th consecutive year, Siemens was recognized as one of the most sustainable companies in Brazil. In 2018, in addition to standing out in the electric-electronics segment, Siemens was also elected the best in Sustainability Governance.



#### **150 Best Companies to Work**

For the 11th time, Siemens ranked among the Best Companies to Work (MEPT) in the Guia Você S/A, one of the main references of good people-management practices in Brazil.



#### **Best Companies to Begin a Career**

In the same survey conducted by Guia Você S/A, Siemens was also elected one of the Best Companies to Begin a Career (MECC), attesting the company's recognition among young professionals.

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