2016 Annual and Sustainability Report
Reinforce Siemens’ commitment towards transparency is the main objective of this Annual and Sustainability Report, produced in two versions: print and online.

To arrive at this content, we first consulted our various stakeholders to learn what really interests them about the company. As such, this Report is a response to our customers, employees, suppliers, universities, entities and communities that maintain or eventually maintain some type of relationship with Siemens.

All the information contained herein refers to the October 1, 2015 – September 30, 2016 period, contemplating the Brazil operation. Pursuant to our head office policy, we only report consolidated financial data. Complete financial data from the Siemens AG head office in Germany is available at: http://www.siemens.com/investor/pool/en/investor_relations/Siemens_AR2016.pdf

The reports published by Siemens Brazil follow the guidelines defined in the Global Reporting Initiative (GRI), an international organization that standardizes publications of this sort. Throughout the chapters, information corresponding to GRI G4 indicators are pointed out according to their acronyms, just below the text they appear.

The online version of this Report can be accessed through the following website: www.siemens.com.br/relatorioanual2016. Besides more detailed information in the expanded version, it also contains videos, links to other Siemens publications, as well as the complete table of GRI indicators.

Aware that publications such as these must be dynamic and constantly satisfy society’s demands, we invite you to participate in a survey about this publication.

Link: www.siemens.com.br/relatorioanual2016/pesquisa

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GRI Indicators - G4: 18
Siemens at a Glance

4.3¹)  
New orders

5.4¹)  
Net income

5.748*  
Employees (September 30, 2016)

¹) In billions of reais

Notas:
• Em 2016:
International Business, Country Level, excluding exports Fiscal year (October 1 - September 30)
* Total Siemens Brazil
Dear reader,

It’s in storms that good sailors are made, and this is how it was in 2016. One of the most difficult years for all sectors of Brazil’s economy. Amid so many wind-storms, we, at Siemens, made important progress together with our customers and partners. We consolidated our growth and development program 10in20, maintaining the objective of doubling our business volume to R$10 billion by 2020, conquering every day the preference of our customers.

What leads me to believe that this objective will be achieved? A series of reasons: we have a legacy of more than 110 years in the country, through which we learned how to work in an anti-cyclical manner, because it’s in times of crisis that our customers need us the most; we developed a portfolio of products, solutions and services shaped to satisfy the country’s main demands today and in the future; we transformed our company before the crisis to face this moment with a focus on customers, through a comprehensive program now consolidated as the Siemens Excellence System.

My optimism also stems from the fact that Siemens is spearheading one of the most important trends for businesses: digitalization. Increasingly present in our day-to-day, digitalization is transforming the supply of energy, industrial production, infrastructure of cities and access to healthcare, and this report shows how these segments can already benefit from our digital solutions.

But for us, the most important is to know how you perceive us and, in this sense, I come bearing numbers to talk about this. Last year, our Net Promoter Score (which measures customer satisfaction) jumped from 27% to 46%. Additionally, for the 9th time, we made the list of 150 Best companies to Work and we were recognized as the most sustainable company in the world according to a sustainability study conducted by researchers at Corporate Knights. To all of those who are part of this, thank you very much.

For such, we restate our commitment to Brazil, with our sustainable approach towards the economy, society and the environment, in an ethical manner and supporting the development of business integrity.

Lastly, it is fundamental to reinforce that Siemens – as signatory of the United Nations’ Global Compact Local Network – commits to contribute to the Sustainable Development Goals, defined so that society achieves the targets of its Agenda 2030.

We work with ingenuity every day to do what really matters. Enjoy the Report!
Our Values

Our values – Excellent, Responsible and Innovative – guide all activities we execute. We believe that these values are fundamental for us to benefit from opportunities, whether internal, such as improvements to our products, services and operations, or external, such as needs that we can satisfy in all sorts of business markets.

Vision 2020

Vision 2020 was created to boost Siemens’ development in the medium-term, answering three questions:

What do we stand for?
What sets us apart?
How can we achieve long-term success?

These questions are answered based on three pillars:

1. Our path – A clear mission

The manner how we perceive our aspirations:

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.

2. Our culture – A lived ownership culture

One engine of sustainable business is our ownership culture, in which every employee takes personal responsibility for our Company’s success. “Always act as if it were your own company” – this maxim applies to everyone at Siemens, for Managing Board members to trainee.
With our positioning in the electrification value chain, we have the know-how that extends from energy generation to transmission and distribution, passing through the concept of smart grids and efficient application of electricity.

And with our solutions in automation, we are well positioned for the future and age of digitalization. Our integrated structure, as well as expertise and comprehensive portfolio, allow us to explore potential interfaces in these three chains.

Introduced in 2014, Vision 2020 has already yielded expressive results for the company worldwide. At the end of fiscal 2016, Siemens AG reported growth in its financial indicators, having achieved its forecasts, boosted its profits and increased the value of its shares in markets where the company is publicly traded. At the end of September 2016, Siemens’ stock was valued at more than €100 in European Stock Exchanges.

Despite a highly challenging business landscape, Siemens increased its volume of new orders, revenues and profit margins globally. The vision of consistently investing in digitalization has also proven productive. Our products and services related to digital programs and solutions grew roughly 12%, compared to the market’s global average of 8%.

In 2016, we introduced Siemens Healthineers (formerly our Healthcare Division) to the market, which became an independent company from the Siemens Group.

Siemens’ operations in Brazil are an integral part of the Vision 2020 context. Once again, Siemens Brazil gathered fruits of its restructuring process from its customers (Net Promoter Score), having boosted its promotor index from 27% in 2014 to 46% in 2016. Additionally, Siemens Brazil established a growth plan that will strongly contribute to the global targets of the Vision 2020 program. Internally, this plan is called 10in20.
Our strategy

For the first time in its history, Siemens added a slogan to its traditional brand logo. The phrase “Ingenuity for life” synthesizes what we wish to represent to society.

Launching of the slogan coincided with the celebrations of the 200th anniversary of our company founder Werner von Siemens. It was in the spirit of discovery, which leads to the production of truly important things for society, that Werner built the company. And it’s this same spirit that continues guiding our actions and is expressed in the phrase.

Like its founder, Siemens is a company that’s never com-
Siemens’ objectives are ambitious for the next years: by 2020, the company aims to double its business volume in Brazil. For such, it created a growth program called 10in20 (R$ 10 billion, in 2020).

The program is based on nine fronts:

1. Leveraging business through digitalization
2. Offering comprehensive energy-efficiency solutions
3. Expanding the offer of services
4. Developing consultative projects
5. Doing business in markets that demand supplier diversification
6. Developing decentralized energy generation
7. Developing railway electrification
8. Growing in the wind energy market
9. Increasing business in Oil and Gas

With the clear purpose to continue contributing to the growth and evolution of Brazil, as it has been doing for 110 years, Siemens evolved in the implementation of actions associated to 10in20 throughout 2016. One example is the incorporation of digitalization concepts in all markets it does business (vertical markets), in addition to using them in its own administrative and manufacturing operations, acting as a model of efficiency regarding the solutions it offers the market.

Another initiative that has helped increase Siemens’ presence in various markets is energy efficiency, a concept that has grown throughout the world to the point of establishing a new paradigm, in which the gain from energy efficiency solutions is bigger than volumes achieved with new forms of energy generation.

In this field, the company is strategically positioned in the traditional thermal energy generation segment, vital for the security of electrical systems, as well as in the renewable energies sector, now with the international merger with Gamesa, an important company in the field of wind energy generation.

A theme of vital importance for society over the next years – energy efficiency – is one of Siemens’ main focuses, which envisions the topic beyond energy generation, transmission and distribution activities, pointing to the high potential for productivity gains in industries and other business segments also, including data centers, business developments, among others, as our solutions help these companies consume energy in a more efficient manner.

Also in the energy segment, Siemens’ focus on decentralized energy took a significant leap following the company’s global acquisition of Dresser-Rand, which in Brazil also included the integration of Guascor. Another highlight for Siemens in this sector is its knowledge and commitment in relation to railway electrification, a concept with huge potential in Brazil.

Within the scope of the company’s growth objectives is consultative projects, in which Siemens doesn’t merely participate as supplier of products and solutions, but rather as a partner of customers in the development of projects during their more embryonic phase, allowing for unique and innovative applications that will provide greater efficiency and return on investment.
Since the late 19th century, the Siemens name has been present in Brazil’s most important modernization processes. Founded as a company in 1905, Siemens already participated in projects on Brazilian soil dating back to 1867, when it installed the country’s first telegraph line between Rio de Janeiro and Rio Grande do Sul.

In the decades that followed, Siemens continued demonstrating its pioneering spirit in projects such as the first diesel-electric unit in the country, the first automatic telephone exchange, as well as the first transformer plant. Siemens was also the first company in Brazil to receive ISO 9000 certification, confirming that we also innovate in the management area.

In almost 112 years in Brazil, Siemens never settled in simply satisfying present-day needs, always seeking to anticipate society’s demands. In this pursuit to satisfy society’s needs,
Siemens shaped its portfolio to quickly answer all changes.

At present, our business divisions in the fields of energy, industry, infrastructure and healthcare are connected to one of society’s most important trends – digitalization –, present in our products and services in an increasingly more relevant manner. Siemens currently has roughly 6000 employees in Brazil, distributed in 12 manufacturing facilities, seven R&D centers and 13 regional offices.

1989
Siemens receives the first ISO 9000 certification in Brazil.

1998
Siemens Brazil’s Telecommunications area receives the National Quality Award (PNQ).

2005
Siemens celebrates its 100th anniversary in Brazil.

2007
Siemens inaugurates in Jundiaí (SP) the largest integrated energy equipment plant in South America.

2009
Siemens inaugurates its first train modernization and assembly center in Latin America, in Cabreúva (SP).

2012
Siemens inaugurates in Joinville (SC) its diagnostic imaging equipment plant.

2013
The first wind farms to use Siemens solutions are installed in the country.

2015
Siemens celebrates its 110th anniversary in Brazil.

2016
Acquisition of Dresser-Rand and Guascor, 2016.
Siemens’ presence in Brazil

With activities spanning practically the entire country, the Siemens Group in Brazil is composed of 10 companies

> Siemens Ltda.
> Siemens Eletroeletrônica Ltda.
> Siemens Healthcare Diagnósticos S.A.
> Siemens Industry Software Ltda.
> Chemtech Serviços de Engenharia e Software Ltda.
> Iriel Indústria e Comércio de Sistemas Elétricos Ltda.
> Guascor do Brasil Ltda.
> Dresser-Rand do Brasil Ltda.
> OMNETRIC Group Tecnologia e Serviços de Consultoria Ltda.
> Industrial Turbine Brasil Geração de Energia Ltda.

*The above data refers to the Group’s simplified structure in September/2016.

Siemens’ structure in Brazil

Siemens current global structure was defined in October 2013. Now, the most important countries in terms of business volume and growth perspectives are called Lead Countries. Brazil is a Lead Country within the company’s global structure.
1 Em junho de 2016, a Siemens e a Gamesa assinaram um acordo para fusão dos negócios de Wind Power e Power Service da Siemens Ltda. No Brasil, esse processo aconteceu no dia 1º de fevereiro de 2017, o que deu origem a empresa Siemens Wind Power Energia Eólica Ltda. Até o fechamento desse relatório, as decisões de marca e demais assuntos ligados à fusão das duas empresas ainda não haviam sido divulgados.
Manufacturing Facilities in Brazil

Centro de Logística e Fabricação da Siemens Healthcare Diagnósticos S.A

Joinville, SC     Year founded: 2012
Company: Siemens Ltda.
Production lines: Magnetic resonance, computed tomography, analog x-rays.

Cabreúva

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

Canoas, RS     Year founded: 1964
Company: Iriel Indústria e Comércio de Sistemas Elétricos Ltda.
Production lines: Power outlets, switches and plugs, power distribution centers.

Jundiaí Industrial Complex


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
Innovation

More than a strategic tool, innovation has been a part of Siemens’ origin since the 19th century. In 1847, when Werner von Siemens invented the pointer telegraph, he wasn’t just introducing a major innovation to the world, but was also, in many senses, experiencing the concept that is now called a startup.

Today, we have roughly 60 thousand active patents worldwide. Every year, the company produces around 7,500 inventions through more than 33,000 Research and Development employees worldwide. In 2016, the year we celebrated Werner von Siemens 200th birthday, the company invested €4.7 billion in research and development worldwide, which amounts to approximately 5.8% of company revenues.

In Brazil, Siemens established in 2016 an Innovation Committee with the objective of fostering and integrating initiatives related to this field in the various Research and Development areas of its business divisions. The measure aims to increase value created for the company and is not limited to the launching or perfecting of products.

One of the practices currently being encouraged and shared at Siemens is the discussion of innovative concepts in the company’s productive processes.
In production areas, for example, meetings between operational teams and their leaders allow exchanging ideas that lead to changes in procedures and systems, with a focus on increasing quality and productivity. Additionally, the company continuously fosters innovative thinking through programs like 3i (impulses, ideas, initiatives), which gathers employee suggestions and rewards them based on gains obtained.

In terms of product development, the connection of Siemens Brazil with the head office in Germany, and the constant interaction with subsidiaries around the world, contribute to the rapid incorporation of innovations in our portfolio. As an important supplier of products for the Brazilian market and also for export, Siemens Brazil works in an integrated manner in the development of new solutions, as currently seen in the development of a new family of steam turbines, for example.

Siemens’ current structure in Brazil comprises seven Research, Development & Non-routine Engineering centers, employing many professionals — many of them with Masters and PhD degrees —, at several of our locations: transformers, medium voltage panels, turbines, capacitors and energy automation (Jundiaí/SP); automation and control of information systems (São Paulo/SP); circuit breakers (Manaus/AM); power outlets, switches and sensors (Canoas/RS); smart grid solutions (Curitiba/PR and Belo Horizonte/MG).

Partnerships

One of the main innovation levers for Siemens are partnerships with both the National Service for Industrial Training (SENAI) and the Social Service for Industry (SESI), as well as academic institutions and startups. In 2016, an initiative by the Brazil-Germany Chamber of Commerce and Industry (AHK) was the creation of a program called Start ups connected. As a member of the entity, Siemens participates in the project sponsoring the digitalization initiative as part of the award.

Various Siemens units in Brazil maintain partnerships with educational institutions, as is the case with company’s Research and Development Center in Curitiba (PR), which works in collaboration with Pontifícia Universidade Católica (PUC) in Paraná. This relationship with the University allows the R&D center, located on the school campus, to stay close to topics developed at PUC, stay close to researchers (professors and students), as well as facilitate cooperation between the institutions. Another important partnership was established between Siemens’ transformer and capacitor plants, both located at the Jundiaí Industrial Complex, with the Federal University of São Carlos (UFSCar).

As in previous years, Siemens utilizes incentive tools, such as INOVA Talentos, created by the Instituto Euvaldo Lodi (IEL) and the National Council of Scientific and Technological Development (CNPq), as well as the Law of Good.

Benefiting from its reach and experience, Siemens closed the gap between its innovation structure and other knowledge producers through the website www.siemens.com.br/academies. With technical notices, information about company programs and initiatives, the portal also provides information about careers at Siemens. To showcase the company as the ideal location for young professionals interested in technical careers, with a focus on innovation, has been one of the objectives of Siemens’ Employer Branding campaign. Events held at universities throughout the year helped to reinforce the company’s relevance before this profile of professionals, restating Siemens as one of the main trend setters in the field of innovation.

As a global technology company, Siemens continuously produces and implements a significant number of innovations in all its operations. To make the dissemination of these innovations even more effective and agile in its structure, and making use of the digitalization concept, the company utilizes tools such as Team Center, a collaborative platform that provides technical and scientific documents and data to the entire community of researchers and developers in the company. The interaction between this group and other colleagues at Siemens is also encouraged through pages in the Siemens Social Network, which operates on the company’s intranet worldwide.
With a history of almost 170 years in the world and 112 in Brazil, Siemens seeks to remain relevant through a portfolio that is constantly shaped to satisfy society’s needs, keeping up with changes that occur over the years. Today, our products are structured along the electrification, automation and digitalization chains.

Eight Divisions comprise Siemens’ products, solutions and services, which are bundled into three business pillars: Sustainable Energy (Power & Gas, Wind Power and Renewables and Power Generation Services Divisions), Future of Manufacturing (Digital Factory and Process Industries and Drives), Intelligent Infrastructure (Energy Management, Mobility and Building Technologies). The Healthcare Access area is serviced by Siemens Healthineers, the former Healthcare Division, which is now an independent company that belongs to the Siemens Group.

All Siemens Group Divisions and companies have a focus on environmental contribution. In 2016, 46% of the company’s global revenues came from products and solutions that help our customers mitigate greenhouse gas emissions. In this period alone, 521 tons of CO₂ were kept from being released into the atmosphere. This number corresponds to more than 60% of annual emissions in Germany.

Siemens makes real what matters for society.
Taking on the challenges of changing energy systems
Sustainable Energy

Energy systems are changing – quickly and fundamentally. The importance of isolated sources of energy and the options for energy generation are changing, as are the paths through which electricity is transmitted and distributed.

Energy generation is becoming increasingly more decentralized, making the energy grid progressively more complex. At the same time, energy consumption continues to consistently grow throughout the world.

Mastering these challenges requires high technology products and services that can cover the entire energy value chain. To be specific, it calls for a comprehensive portfolio of physical and digital solutions, products and solutions that allow actively building our energy of the future.

Siemens product line includes everything from state-of-the-art compressors, turbines and generators to virtual our plants, network management systems and innovative storage solutions – all this backed by the supply of services and exceptional commitment to satisfy the individual needs of each customer.

Power and Gas

Wind Power and Renewables

Power Generation Services

Em junho de 2016, a Siemens e a Gamesa assinaram um acordo para fusão dos negócios de Wind Power e Power Service da Siemens Ltda. No Brasil, esse processo aconteceu no dia 1º de fevereiro de 2017, o que deu origem a empresa Siemens Wind Power Energia Eólica Ltda. Até o fechamento desse relatório, as decisões de marca e demais assuntos ligados à fusão das duas empresas ainda não haviam sido divulgados.
Siemens offers the market the most complete energy generation portfolio. In addition to gas and steam turbines, generators and instrumentation and control systems for power plants, compressors, solutions for electrical and automation systems, our company also reinforced its position recently in the oil and gas market.

Siemens’ market-share increase in this market is directly linked to the acquisition of two important businesses on a global level: Rolls-Royce’s aeroderivative turbines segment and Dresser-Rand, which in Brazil also included the incorporation of energy company Guascor, which produces diesel and gas motors, being a specialist in customized energy solutions based on alternative systems.

Perspectives of the oil and gas market in Brazil put Siemens in the spotlight, not only because of its extensive portfolio, but also due to the company’s ability to develop innovative solutions. The country’s huge potential in this market, mainly because of the pre-salt, will be translated into effective production as the segment is able to be supported by high productivity solutions.

Another trend in the energy segment that relies on solutions from Siemens is the distributed energy concept. Generating energy close to points of consumption is a global trend that’s being adapted in an exemplary manner in Brazil, given the country’s large territorial size. Such trend minimizes the need to invest in big transmission systems and also reduces energy losses. Furthermore, tapping the potential of the country’s renewable sources – biomass, wind, solar, among others – will be just as efficient as the solutions to connect them to the interconnected electrical system, allowing to balance load and ensure network stability.

Siemens is also at the cutting-edge in another aspect of growing importance in the economy: digitalization. In energy generation processes, the monitoring of data in real time is a tool of growing relevance both in terms of productivity and process safety, as well as for reducing environmental impact. In Siemens’ portfolio, the digitalization concept is present from the very onset of projects.

Brazil’s energy generation potential is huge, both from renewable sources as well as from the perspective of fossil sources. Looking at things in perspective is paramount for defining the generation model that the country aspires, tapping all this potential to ensure productivity and environmental commitment. With a comprehensive portfolio for the energy generation area, Siemens goes beyond the commitment of supplying equipment and solutions, positioning itself as an authentic partner and participating in projects since the conception and predevelopment phase, performing consultancy tasks.

Rainer Brehm
Director of the Power and Gas Division
Eleven turbines in a single sale. In 2016, Siemens was chosen to be the partner in the expansion project of three Ende Andina SAM thermal power plants in Bolivia. The total energy generation capacity of the combined-cycle power plants Termoelectrica del Sur, Termoelectrica de Warnes and Termoelectrica Entre Rios will increase more than one Gigawatt (1 GW).

Siemens’ supply scope comprises 14 SGT-800 gas turbines, 11 SST-400 steam turbines of 45 MW each, 22 steam generators and the SPPA-T3000 instrumentation and control system. The 11 steam turbines will be under Siemens Brazil’s responsibility and will be produced at the Jundiaí Industrial Complex (SP).

As the biggest project in the history of Brazil’s steam turbine unit in this segment, the supply of 11 turbines will begin being delivered in the second semester of next year. The customer in question, which already possesses Siemens gas turbines, opted once again to maintain an integrated solution in this megaproject.

Among other challenges, the T3000 control system developed in Germany, will be applied for the first time to steam turbines produced in Jundiaí and will provide a major benefit to the concessionaire, since it refers to the same control system used with the gas turbines and for controlling the entire energy generation plant.
Power Generation Services

Siemens’ business activities in the energy segment has, as one of its pillars, the division that caters to maintenance processes, which today are not limited to repair activities. In fact, the team of specialists from the Power Generation Services Division works with steam and gas turbines, generators for thermal power plants and process compressors (generically known as turbo machines), also with a focus on boosting productivity.

One of the main solutions for this intended productivity-increase are tools associated to the digitalization concept. If, today, equipment stoppages require vast planning processes, in the near future, this dynamic will be significantly altered. With the monitoring of parts availability data in the client’s inventory and machine state on time, it is already possible to predict with a high level of precision the ideal moment to execute these stoppages, allowing the client to plan accordingly for this. In the near future, as the use of 3D printers is disseminated, substituting a part whose useful life has expired will be a task to be executed on site, increasing process agility.

The traffic of information, accelerated by digital tools, is another Siemens benefit. As a global company that develops pulverized solutions through its many centers of competence, Siemens is capable of quickly servicing customers in different parts of the world, transferring information about parts and systems used in other countries.

In 2016, the Power Generation Services Division benefited from several maintenance processes programmed for previous years, which had to be postponed due to the 2014-2015 energy crisis. Also added to the area’s list of activities are those executed by the recently acquired Dresser-Rand and Rolls-Royce, which fleets were included in the Siemens portfolio.

“
Maintenance of energy-generation equipment decisively influences the productivity of companies, this being the reason why introducing and utilizing the concept of predictive maintenance is a way to optimize processes. They will become increasingly more agile by the digitalization that Siemens already excels at, both in the energy generation chain, as well as in industries, allowing us to share operational data of equipment, take action before failures occur and no longer work in a preventive manner, based on statistics as predominantly done today.
”

Armando Juliani
Power Generation Services Director

InternationalPaper

The pulp and paper mill of multinational InternationalPaper (iPaper) is located in the city of Mogi Guazu, inner São Paulo state, and has been producing printing and writing paper since the 1960s. Its annual production capacity amounts to 400,000 tons of pulp and 435,000 tons of paper. In the late 1990s, the unit purchased an SST-300 steam turbine from Siemens, which initially generated 27.5 MW of energy. With more than 15 years of operation, the equipment received the usual periodic maintenance, until the client decided to do more than just mere conservation and expand the turbine’s generation capacity, due to the high price of energy and its impact on the production process.

The work developed by Siemens’ Power Generation Services Division to satisfy this demand, included the substitution of components, for mechanical modifications, as well as control modification. The upgrade process also included modernization of the turbine’s safety valve, in order to comply with the insurance company’s standards.

The multinational’s high requirement levels were some of the project’s biggest challenges, having satisfied the initial objective of increasing the turbine’s power from the original 27.5 MW to 29.2 MW. The equipment’s capacity would allow supplying electricity to a city with roughly 200,000 inhabitants. In addition to supplying energy for its own functioning, the modernized turbine allows iPaper to sell the excess energy to the external energy grid.
Wind Power and Renewables

Ocean, blue sky, sand forming tall dunes, windmills. The landscape of certain regions, particularly in the Northeast, have been transformed over the last years with the expressive growth in wind-based energy generation.

Siemens is part of this story and intensifying its presence following the creation of the world’s largest wind energy company.

In 2016, Siemens and Spanish-based Gamesa announced the intention to merge their wind energy operations. Today, Siemens is the leader in the offshore segments and now, with the Gamesa merger, it will also become the leader in onshore applications. The two companies also complement each other in terms of markets, where Siemens has a strong presence in northern Europe, United States and Canada, and Gamesa stands out in emerging markets like Latin America and India. Together, Siemens and Gamesa totaled 72 GW of installed capacity worldwide in fiscal 2016. The new company starts out with approximately 24,000 employees and Siemens will maintain a 59% shareholding stake.

In Brazil, perspectives for Siemens’ new wind-energy company are excellent. It is estimated today that, together with Gamesa, the installed capacity of both companies in Brazil exceeds 2.5 GW and that another 1.0 GW will be added in the next two years just with projects currently in the portfolio.

Wind energy in Brazil is expected to grow significantly over the next years. At present, wind energy amounts to almost 6% of the total electrical energy generated in the country. By 2023, this percentage should reach 11%, the highest growth projected in Brazil’s energy grid.

In 2016, our windmills produced more than 1,600 MWh of energy, avoiding 800 thousand tons of CO₂ from being released into the atmosphere.

Eduardo Angelo
Wind Power & Renewables Director

“By creating a global wind-energy leader, Siemens increases its market share and expands its global presence. In Brazil, our operation will benefit from bigger business scale, operational synergies, extensive production chain developed in the country, optimization of logistics aspects and will also offer customers the most complete portfolio in the market.”

Maintenance: a productivity ally

Just as important as purchasing high quality equipment for energy generation is ensuring that they will operate efficiently throughout their lifecycle. In addition to offering windmills with high embedded technology, Siemens offers the market its team of maintenance specialists who work directly at customer wind farms.

By 2016, Siemens already installed 205 windmills in northeastern states like Ceará, Pernambuco, Bahia and Rio Grande do Norte. In addition to offering energy generation equipment, Siemens has also stood out in the wind energy sector for the performance of its Maintenance Service contracts, seeing to that this equipment is permanently adjusted to customer needs in order to ensure the expected business productivity.

A study conducted by specialized portal Canal Energia elected Siemens’ SWT 2.3-108 wind turbines as having the highest capacity factors in Brazil’s wind energy sector in 2015, compared to turbines of other manufacturers. The efficiency of Siemens’ equipment has yielded major results for its customers, reaching capacity factors of up to 48.8%.
The reality is digital, and it’s already in our hands
Future of Manufacturing

In several countries, Industry is experiencing a new and profound revolution, considered the fourth major change of paradigms in the sector’s history. Automation processes, which evolved and expanded in the second half of the 20th century, are now headed towards digitalization concepts.

The objective: increase productivity, efficiency, speed and quality, resulting in greater competitiveness for companies on their path to the future of manufacturing. At Siemens, our solutions for the industrial segment are grouped in the Digital Factory and Process Industries and Drives Divisions.

In the context of Brazil’s industry, Siemens’ solutions contribute in aspects that range from energy efficiency of plants that result in cost reductions, to digital tools that allow for the convergence of the real and virtual worlds, leading to the consolidation of the so-called digital company.
Digital Factory

The most modern plants in the world today are ready before they’re even built. It may seem paradoxical, but this concept is the foundation of Industry 4.0, also known as Advanced Manufacturing, a series of transformations that are revolutionizing industrial production throughout the world and where Siemens plays a leading role.

In order to increase their competitiveness, industries need to reduce product launching times, make production more flexible in accordance with the increasing demands of consumers, increase the quality and produce larger quantities with less resources. To enable this series of requirements, several technologies come into play, such as data analysis, the Internet of Things, cloud computing, coupled with tools already available in the industrial sector.

Siemens’ Digital Factory Division concentrates the solutions responsible for helping industry reach a new stage of modernization, based on productivity increases and product customization, two concepts that, in the past, seemed to walk in opposite directions. Examples like the initial phrase – plants that are ready before they’re even built – already appear on our list of recent achievements in the market.

One such case is Jeep’s plant in Goiania (PE), considered Fiat Chrysler Automobiles’ (FCA) most modern manufacturing facility. At the origin of the project, a 360° approach, facilitating planning speed and problem resolution efficiency. In addition to automation products and solutions, Jeep’s plant included consulting, supply of parts, on-site training and remote support from Siemens’ teams.

In 2016, the Brazilian market got a taste of what Siemens’ portfolio can do to modernize the country’s industry. During the International Machinery and Equipment Fair (FEIMEC), Industry 4.0 concepts were demonstrated on a real production line, through the Advanced Manufacturing Project.

Romi

Founded in 1930, in the city of Santa Bárbara d’Oeste (SP), Romi produces machines that supply sectors such as aeronautics, defense, automotive, consumer goods, among others. Today, the company possesses 11 manufacturing units, two in Germany, following its acquisition of Burkhardt+Weber. As a traditional customer of Siemens in the automation segment, Romi presented a different challenge: to integrate its machines to allow reducing time between design and production processes.

The solution presented by Siemens was based on implementing a software that allows not only integrating the equipment installed, but that also executes the complete management of the process, through the acquisition and utilization of data generated by these same machines.

One of the programs acquired, Siemens PLM’s NX, is a product, engineering and manufacturing integrated project solution that increases quality and reduces production time at the same time. Another product purchased from Siemens PLM was the Teamcenter, which integrates the different work streams into a single source of knowledge about products and processes.

In the medium and long-term, there exists the possibility of integrating processes between Romi’s sites in Brazil with its plants in Germany, based on Siemens program features. In addition to supplying products, the project became emblematic for having been led by a Brazilian company, generating a global agreement with Siemens, originated in Brazil.

Digitalization offers opportunities not only for big companies, but also small and medium-size businesses, as it provides high levels of efficiency and flexibility. Intelligence, knowledge and technology are benchmarks for adding value and being competitive. With the huge amount of big data generated, business models are created, generating big opportunities.

Renato Buselli
Digital Factory Director
Process Industries and Drives

Higher productivity and better quality are two key objectives of managers in the industrial segment. And it’s precisely this binomial that the solutions from Siemens’ Process Industry and Drives Division provides its customers, in a relationship that begins well before defining the solution and its implementation.

Siemens commitment to improve customer processes and profitability reaches the point of the company financially showing how certain investments can be quickly recovered with savings in resources, such as electricity. An example of this is the utilization of our drive systems, which allow for savings up to 50% in energy consumption, one of the inputs with the highest impact on industrial costs.

Besides products, Siemens is also helping revolutionize the sector with its digitalization solutions. With them, a company in the industrial sector today can already plan its products and its production in parallel processes, no longer sequentially as done in the traditional system, generating speed and flexibility in the product’s entire lifecycle. Other benefits of digitalized production include the quantity and variety of indicators, which are converted into relevant information for the efficient management of operations, of the business and for facilitating decision-making.

In today’s industrial sector, a company that supplies solutions cannot limit itself to selling products and services. Knowing a customer’s operation inside out and, together with it, analyze alternatives for increasing productivity and efficiency is a primordial task. At Siemens, we call this ‘commitment’ and practice this concept in a true consultative relationship before the sale is even made.

Vale

As one of the largest mining companies in the world, Vale S.A. implemented a comprehensive project to manage the iron ore and manganese units of 38 company mines, plants and warehouses in Brazil. The objective was to consolidate a system that ensured total transparency along the value chain, from beginning to product shipping. The supplier chosen was Chemtech, a Siemens Group company.

The solution developed by Chemtech was a Manufacturing Execution System (MES) based on the business model defined by Vale. The new system will substitute 17 others that were being used, several of them stemming from the acquisition of other companies, and will allow comparing the performance of units and identify pain points.

This change also provides three key financial gains. One is the reduction in IT costs with the maintenance and evolution of different systems and platforms, which should amount to US$35 million by 2020. The second gain is the cost avoided by the business due to less operational impacts caused by system downtime. Lastly, relevant gains are expected from higher labor productivity and less nonproductive hours of assets, supported by better usability of the system and greater availability of information for decision-making.

Rainer Brehm
Process Industries and Drives Director

GRI Indicators - G4: 2 • 4 • 8 • EC2 • EC7 • EC8 • EN27
More quality of life in all of Brazil
Growth of cities is a consolidated trend that shall continue over the next decades, creating an even greater number of big cities in several countries. Living with a good quality of life in these super populated cities is one of humanity’s biggest challenges and will continue being so in the future.

One of the challenges is the transmission and distribution of energy to these large urban centers, usually located distant from traditional sources of generation. Urban mobility, as well as between cities, is a major development opportunity even in Brazil. And the sector’s perspectives are not limited to increasing the quality of transport for passengers and cargo, as there’s huge potential in railway electrification also, which can contribute to the traffic of energy and other fundamental inputs, such as water and virtual communication.

Energy efficiency and security of buildings also present huge potential in this area.

Siemens’ solutions in this area comprise products and services in the areas of energy management, mobility and building technologies, and grouped in its Energy Management, Mobility and Building Technologies Divisions.
Supplying the world with energy is not just a matter of generation, transmission and distribution, but rather executing these stages in an intelligent manner, optimizing resources and generating greater productivity in all processes.

One of Siemens’ biggest contributions for society to master this challenge resides in digitalization, which is incorporated in all processes in the generation, transmission and distribution stages. With digital tools, it is possible to design and implement smart grids, where energy is made available where it’s needed and in the amount necessary.

Even though 2016 was a difficult year for companies in this sector, Siemens participated in several projects that already incorporate innovative concepts and are helping add modernity to Brazil’s electrical system.

In the generation area, for example, projects based on solar energy and wind energy already benefit from the Balance of Plant (BoP) concept, which manages all components of energy generation plants and allows for more precise decisions in the pursuit of greater productivity.

In distribution, Siemens also stood out with innovative solutions such as the Fusesaver, a product that identifies whether the lack of energy is temporary and avoids that energy be turned off unnecessarily. This product is being used by power utilities like Companhia Paranaense de Energia (Cotel) and Companhia Energética de Minas Gerais S.A. (Cemig).

In terms of incorporating innovations, the Energy Management area will also play an even more relevant role within the concept of distributed generation, as the trend today is to produce energy in a decentralized manner, closer to consumption centers. For such, the use of solutions that manage all processes, from energy generation to consumption, will become even more indispensable.

“The energy management concept becomes increasingly more important to ensure an efficient supply to a growing and concentrated population living in cities. Controlling and perfecting processes related to this subject include mastering themes such as energy efficiency, distributed generation and smart grids, which areas Siemens is a leader in Brazil and around the world.”

Guilherme Mendonça
Energy Management Director
Cemig

Increase the capacity and reliability of the electrical system, improve service and expand the supply of energy. These demands are the pillars of the challenge proposed by Companhia Energética de Minas Gerais S.A. (Cemig) to the market. Siemens’ answer: five compact substations on a skid to be installed by the end of 2017.

The option to use a skid added several benefits to the project: a significantly shorter installation time, since the structure leaves the plant already mounted; compact configuration, allowing to be reallocated to different plants, according to demand; and, as a consequence of this characteristic, the possibility of being strategically used as backup, increasing network reliability.

The substations involved in the contract are designed for voltages of up to 145 KV and include several solutions from Siemens’ portfolio, such as high-voltage circuit breakers with disconnecting switch integrated, transformer, protection and control panels, auxiliary services and telecommunication. Cemig Distribuição’s first integrated compact substations to have the Siemens solution are: Pompeu II, Prata II, Coqueiral, Rio Espera and Francisco Sá, in Minas Gerais.

Casa dos Ventos

Casa dos Ventos is a pioneer company in Brazil’s wind energy segment, with wind farms installed in the states of Piauí, Ceará, Rio Grande do Norte, Pernambuco, Paraíba and Bahia. On the border between Piauí and Pernambuco states and the top of Chapada do Araripe, the Ventos do Araripe III wind farm complex will comprise 14 wind farms when fully concluded.

To collect the energy generated in the complex and transmit it to the national interconnected system, the company contracted from Siemens a 230/34.5 kV air insulated substation, as well as unit substations for the 156 wind turbines that comprise the complex. The main challenge of the project was its short execution term, which Siemens satisfied and concluded by December 2016.

One of Siemens’ advantages to win the project, in addition to competitive price and appropriate strategy, was its experience in implementing similar projects, such as the Complexo Eólico Santo Inácio, located in Ceará state.

Eletrobras

Facing a challenging situation, Eletrobras had the need to increase productivity of its system, specifically in the North region of Brazil. To expand its network, add modern technologies and implement metering systems, the energy concessionaire created Project Energia + and awarded Siemens the biggest smart grids project in Brazil to date.

The solution proposed by Siemens is based on smart meter technology, which allows monitoring and ensuring that the energy transmitted is effectively distributed and not lost along the way. In addition to supplying smart meters, Siemens also participated in the project with installation and maintenance services, communication infrastructure development, system implementation and a metering management center.

The benefits expected from the project, which is expected to be concluded in 2020, include an improvement in service quality provided, reduction in failures, the possibility of integrating distributed generation and increased productivity of the entire system. Also thanks to this, Eletrobras will also have a better management of commercial processes, monitor activities of metering, billing, fraud detection and energy quality in real time.
Buildings concentrate more and more people in the urban environment and, especially in the case of corporate buildings, require attention to items such as fire prevention and solutions automation, as well as air-conditioning and access control.

The Building Technologies Division offers products that satisfy this demand and more, also providing greater efficiency in energy consumption.

Activities of the Building Technologies Division were restructured by Siemens Brazil in 2016. In order to service a highly-pulverized market in all regions of the country, the division intensified its partnerships with integrators, which develop and provide adequate coverage to these regional markets.

One of the most important segments in this market – fire detection and firefighting – possess potential not only for corporate buildings and properties with large concentrations of people, like shopping malls, but also for a construction profile that’s growing in the Brazilian market – data centers –, attracting more investments and demanding safety solutions such as those offered by Siemens.

Brazilian buildings also present a high potential for building automation, which benefits include better utilization of resources, especially electricity, contributing to the profitability of companies.

2016

Activities of the Building Technologies Division were restructured by Siemens Brazil in 2016.
In a pulverized market such as that of building solutions, we increased our presence through partnerships with integrators, providing products and solutions for fire protection, building automation and security, helping optimize costs of companies of all segments and sizes.

"In a pulverized market such as that of building solutions, we increased our presence through partnerships with integrators, providing products and solutions for fire protection, building automation and security, helping optimize costs of companies of all segments and sizes."

Renato Buselli
Building Technologies Director

Mourisco Corporate Center

An important building in Rio de Janeiro, Mourisco Corporate Center became a benchmark in the segment when it was the first building in the city to implement the concept of building automation back in the 1990s. In 2016, following a bid process, Mourisco contracted the proposal that best satisfied its needs of updating its air-conditioning automation and energy-monitoring systems. The building selected for this process the Desigo CC solution supplied by Siemens.

Desigo CC integrates a wide variety of systems, including building automation, fire protection, lighting, IP cameras, power and energy. With integrated customization features, Desigo CC adapts to satisfy essential operation items of each customer, functioning as a truly intelligent system.

In the case of Mourisco Corporate Center, which houses several important companies in their respective segments, its high level of functioning is a competitive advantage. Facilities offered by the building include systems for physical security, property security, monitoring and recording of images, as well as building automation, which include the energy and air-conditioning systems modernized by the Siemens solution. An important characteristic of the Siemens solution is to allow improving already operating systems through investments with an excellent cost-benefit ratio.

This was a key factor for winning the contract, reflecting Siemens' understanding of the customer’s need. Siemens offered a low-cost solution, integrated with the existing system, which allowed updating the system in a gradual and sustainable manner.

A particular construction profile that's growing in the Brazilian market refers to Data Centers, which is attracting more and more investments and demanding safety solutions such as those offered by Siemens.
Throughout the world, one of the biggest social challenges faced by cities is the transporting of people and goods. Traffic in cities present consequences that involve more than just the amount of time spent getting places: it can affect the environment, with the emission of pollutant gases, productivity in companies and, above all, people’s quality of life.

Through its Mobility Division, Siemens is the only company that combines all the solutions for mobility, with electrification systems for railways, subway lines and electrical buses; locomotives; multimode signaling systems; digitalization software, as well as services.

In Brazil, an important perspective has consolidated in this market and transcends the issue of transport itself: railway electrification. By transforming the supply system of cargo train lines from diesel to an electrical system, the benefits extend to other aspects of infrastructure. Example include a reduction in pollution emissions, increased international competitiveness through transport speed and safety, as well as a reduction in losses, food safety, theft and accidents. With railway electrification technologies, besides transporting passengers and cargo, these railway structures can also carry the energy (electrical transmission and pipelines), water, communications and Internet, also providing social development along the railway.

In Europe, Siemens has already implemented several projects of this type. In line with Brazil’s need to modernize its infrastructure, Siemens is ready to also contribute with this technology that combines development and sustainability.
Metrô Bahia

Managed as a Public Private Partnership (PPP) by concessionaire Metrô Bahia (owned by Grupo CCR), Metrô Bahia possesses two subway lines extending 31 km, with 19 stations and comprises several Siemens solutions: signaling and control systems, catenary and telecommunications.

The control system installed by Siemens, Trainguard MT®, activates the semi-automatic operation. With it, even though the conductor starts the training manually, the system automatically takes over acceleration and speed control between train stations, also determining the train’s stoppage and the opening of doors at stations.

In terms of the telecommunications system, Siemens participated as integrator of the data transmission, fixed communications, multimedia, message panel and timing, electric monitoring and radio subsystems. Siemens was also responsible for the complete catenary supply (distribution and electrical supply system for traction) in 3kVcc for the trains.

One of Siemens’ competitive advantages in this project, besides high-quality, was its ability to satisfy the customer’s demands within a short period of time. Siemens’ participation in the already ongoing project was due to CCR’s positive evaluation in relation to the supply it made to São Paulo’s Subway Line 4-Yellow.

With Brazil’s need to modernize its infrastructure, Siemens is ready to also contribute with this technology that combines development and sustainability.

“Planning the transport of people and goods involves more than just the travel part. It also involves designing the benefits that intelligent mobility can provide society with the integration of electricity, telecom and data-transmission structures, for example, optimizing public and private investments.”

Andreas Facco Bonetti
Mobility Director

By transforming the supply system of cargo train lines from diesel to an electrical system, the benefits extend to other aspects of infrastructure.
Diagnostic and treatment quality, productivity for companies in the sector
Access to Healthcare

More than a new name, Siemens Healthineers represents the company’s desire to help remodel the healthcare market. Since it decided to transform its Healthcare Division in an independent company, within the Siemens Group, the company had as its main objective overcoming the global changes in the healthcare market in the most effective manner possible.

Examples of changes include the increase in the population’s life expectancy, the pressure of healthcare costs on public administration, and the new configuration of business groups given the forming of large conglomerates. Develop superior quality diagnostic equipment is something we’ve been doing with dedication for several decades.

But this is not the only way Siemens Healthineers uses to positively influence the healthcare market: innovation, for us, also means working in a consultative manner with our customers, with the objective of understanding their work streams and coming up with solutions for their entire value chain, including aspects like logistics and billing.

Siemens Healthineers is present in the following segments: imaging, laboratory diagnostics, point-of-care, structure and IT, services and accessories.
Global changes in the healthcare market pose a challenge for all companies and professionals in the sector who need to respond to trends in terms of consolidation, industrialization and population healthcare management.

Given this scenario and with the objective of servicing the healthcare segment in an even broader manner is that the Healthcare Division communicated, in 2015, its new strategy and globally announced, last year, its new brand name: Siemens Healthineers.

Overcoming the current challenges of the healthcare market is not an easy task and this is why Siemens Healthineers has taken on the roll that goes beyond providing complete solutions and diagnostics: we work every day to create new opportunities for our customers and develop solutions that offer clinical, operational and financial excellence. At Siemens Healthineers, our focus is to be the strategic partner of our customers and, therefore, we offer complete management and consulting services, as well as digital services in healthcare and solutions to guide therapy and interventions.

An example of Siemens Healthineers’ partnership with the diagnostics market was a project developed for laboratory Richet Medicina & Diagnóstico, which selected the company to be the supplier of imaging diagnostics solutions for its first unit that follows the One Stop Shop concept, comprising in a single location complete clinical and imaging diagnostics analysis services, such as MAGNETOM Aera and MAGNETOM Essenza (magnetic resonance), SOMATOM Perspective (computed tomograph), Biograph mCT (PET -CT), Symbia S (nuclear medicine), and Multix Select DR (digital X-ray) and imaging software (syngo. via). Laboratory automation solution Aptio and the most complete automation platform of clinical analysis exams was also part of the project also.

Other relevant topics in the healthcare segment are the new configuration of companies that comprise this market, with mergers, acquisitions and cost reductions. To ensure that these new demands are consolidated in a safe manner and with less risks, it becomes increasingly necessary to adopt Information Technology solutions and tools, adopting cloud computing, mobility, Internet of Things and Big Data concepts.

Two good examples are LifeNet and Teamplay, the first is a web portal that allows customers to manage and monitor the performance and maintenance of their installed base. With just a click, it is possible to open and monitor calls, check programmed activities, verify scheduled training and access contracts. The service also allows customers to maximize the availability of their equipment, avoiding non-programmed stoppages and better planning their usage. In turn, Teamplay allows monitoring several productivity factors, such as total number of patients serviced per operator, machine use time (to avoid idleness), patient change time, radiation dose that patients were exposed to, etc., storing all this information in cloud.

Two other healthcare management solutions are syngo® Lab Inventory Manager (sLIM) and POC EcosystemTM. The first utilizes cloud technology and Radio Frequency Identification (RFID) for automated inventory management in laboratories, avoiding waste and reducing inventories along the entire process without compromising availability. The second allows managing, through a single platform, the entire Point of Care test environment, such as the equipment, operators, patient results, reagents and quality control.

At Hospital Israelita Albert Einstein, in São Paulo (SP), A liver tumor resection was performed for the first time in a minimally invasive manner using a hybrid room – a surgical room equipped with imaging equipment, such as MR, angiograph and tomograph. During the surgery, the team counted on support from imaging systems
The opportunities offered in the healthcare segment with the use of technology are many, beginning with prevention and the possibility of even earlier diagnoses. In Brazil, there is enormous pressure to reduce costs and optimize resources. Siemens Healthineers possesses technology and innovations that allow for greater access to good quality healthcare and at the same time help our customers optimize and better manage their resources, reflecting positively along the entire value chain.

Along this line, Siemens Healthineers also offers its customers the Enhanced Liver Fibrosis (ELF) test, which identifies through blood collected the level of liver damage in cases of hepatic fibrosis. The diagnosis can be complemented by ultrasound, which in addition to identifying morphological changes, steatosis (fat accumulated in the liver) or possible lesions, it counts on an elastography resource that determines the level of damage by measuring the elasticity of liver tissue in a noninvasive manner, simply using ultrasound pulses. Before these new technologies appeared, the standard exam was the so-called histological analysis (biopsy) and required internment to collect liver tissue, generating costs, patient discomfort and even the risk of hospital contamination. Today, with a simple blood collection, it’s already possible to prevent evolution of the disease.

The first remote command center for magnetic resonance equipment completed its first year of functioning at Grupo Alliar Médicos à Frente, in São Paulo (SP). The solution allows performing high-quality exams any place in Brazil, since it allows relying on highly specialized professionals even in the most distant regions of the country. The magnetic resonance equipment is connected to the Virtual Operations Center (VOC) through a hardware and software hit, which includes cameras, audio interfaces for communication and several sensors. Through the center, it is possible to set up equipment remotely to perform exams in accordance with the patient’s specifications, clinical history and doctor’s orders, thus reducing the level of patient callbacks and ensuring standardization of exams and excellence quality.

Richet Medicina & Diagnóstico chose Siemens Healthineers as its supplier of imaging diagnostics solutions for its first unit that follows the One Stop Shop concept.
The world is aware of climate changes and coming together in a systematic manner regarding the topic. The Paris Agreement establishes controlling the increase in average global temperature and one of the main tools for this is to reduce emissions of pollutant gases.

Brazil has already defined its targets to do this, projecting to reduce emissions 37% by 2025 and 50% by 2023. With its portfolio of products and solutions capable of helping reduce the emissions of its customers and partners, Siemens restates its commitment that what matters for Brazil matters for Siemens.

And we begin giving examples of our own operations. Worldwide, Siemens was the first company in the industrial sector to establish the goal of neutralizing its carbon footprint, defining 2030 as the deadline for achieving this target, but we aren’t going to wait until then to advance in this direction. By 2020, that is, in the medium-term, the commitment is to reduce by half our emissions, which today amount to roughly 2.2 million tons of CO₂.

For such, we will be investing globally €100 billion in energy efficiency solutions by the end of 2017, both in our manufacturing facilities as well as administrative offices. Additionally, the investment will generate annual savings of €20 million. Examples of actions in the company’s operation are already visible and several are described in this report, from major structural changes to cultural changes, such as the rule to utilize ethanol to refuel vehicles of company executives.

The principles of sustainability, with a balance between social, environmental and financial interests, are applied throughout our value chain, from suppliers to end customers. With our environmental portfolio, Siemens’ customers around the planet have already reduced emissions by 521 million tons of CO₂, which corresponds to more than half of Germany’s total emissions.

Internationally, Siemens continues being recognized as one of the most sustainable companies in the industrial segment by entities such as the Dow Jones Sustainability Index (DJSI), which this year ranked Siemens among the leaders in the “Industrial Conglomerates” group that comprises more than 40 companies, and having received a global assessment score of 89 out of a maximum 100 points. The company is also recognized by the Carbon Disclosure Project (CDP), the world’s biggest climate protection survey, having scored 100 points (out of a possible 100) in the entity’s assessment.

In Brazil, Siemens was recognized for the second consecutive year as the most sustainable company in the electric-electronics sector in the Exame Sustainability Guide. The companies included in this publication undergo an analysis of items such as corporate governance, transparency, ethics, corruption combating, environmental responsibility, relations with employees, suppliers and community. This recognition reflects our commitment to sustainability.
Stakeholder dialogue

At Siemens, sustainability is one of the pillars of our strategy and it’s no exaggeration to say that the term has been part of our management since the company was founded more than 170 years ago.

The relationship with stakeholders – internal and external – is based on business transparency and sustainability practices, always with a focus on minimizing eventual risks in our activities for society, the environment and the company’s business itself.

Periodically, Siemens consults with the different publics that exert influence over our strategic and operational interests. This consultation results in a materiality matrix that indicates the main guidelines for the company’s activities.

Last year, consolidation of the Siemens Excellence System (SES) led to the integration of knowledge initiatives and interaction with our main stakeholders – employees, customers, suppliers, teaching institutions, industry entities and communities. The systematization of information about these groups is not exclusive to Siemens’ business areas or the department responsible for sustainability actions.

Materiality of Sustainability as guide

In order to identify the demands of different publics that influence directly or indirectly the strategic and operational interests of Siemens, we periodically conduct a survey. The origin is a materiality matrix that provides us guidelines for our business activities. The topics in 2016 are the same as those defined in 2015:

- Sustainability in the Supply Chain
- Integrity and Combating Corruption
- Environmental Portfolio
- Customer Satisfaction
- Internal Eco-Efficiency
- Local Value-Added
- Risk Management
- Cidadania Corporativa
- Saúde e Segurança no Trabalho
- Employee Recruitment and Retention
- Diversity
- Solid Waste and Reverse Logistics

The base for this survey and gathering information to build this report follows Global Reporting Initiative (GRI) – G4 guidelines, the same applied in 2015, which analyze the level of importance of economic, social and environmental performance.
Sustainability at Siemens

At Siemens worldwide, initiatives related to sustainability are defined by the Sustainability Board. This committee is composed of executives from the business areas, corporate areas and country representatives. Siemens Brazil’s President and CEO, Paulo Stark, is a member of the committee, representing Brazil.

The sustainability program is coordinated by the Chief Sustainability Officer (CSO), an executive who exerts the function of Chairman of Siemens’ Sustainability Committee. The CSO operates through a global network of Sustainability Officers in business areas, corporate areas and in countries.

Sustainability in Brazil

The sustainability structure at Siemens Brazil is spearheaded by the Sustainability Officer, who counts on a specialized team. This team’s function is to ensure that initiatives aligned to global strategies are implemented in the country. Like Siemens AG, Brazil possesses a Sustainability Committee that decides on strategies, monitors the program’s evolution, and promotes sustainability within the operation and throughout the value chain, that is, also outside the company. The committee is composed of key company executives, proving the importance that sustainability has for the company in Brazil.

Three pillars support sustainability governance: Environment, Corporate Citizenship and Environmental Portfolio Development. The objectives defined for Brazil are:

- Promote business in Brazil through Siemens’ Environmental Portfolio;
- Be recognized as a model of corporate citizenship in the country;
- Comply with environmental protection commitments and local regulations;
- Be a reference in sustainability.
The Environmental Protection, Health Management and Safety (EHS) area at Siemens Brazil defined in 2016 its local environmental strategy based on global guidelines divulged in 2015.

This strategy coined One World, one life, we care is supported by four key programs: Zero Harm Culture @Siemens, Health@Siemens (more in the Occupational Health & Safety chapter), Serve the Environment and Product Eco-Excellence.

The Environmental Protection department (EHS EP) conducts a quarterly monitoring of environmental performance indicators using the Siemens Environmental and Technical Safety Information (SESI), a virtual environment that subsidizes critical performance analyses.

In 2015, Siemens defined the objective of increasing, by 2020, the management efficiency of waste and energy by 1% a year. However, with the evolution of initiatives, the company is already reviewing this expectation upwards, projecting reductions of more than 1% a year in both areas.

Another action was a project executed at the Jundiaí (SP) transformer plant, where employees and energy efficiency postgraduate students from the European Energy Manager (EUREM) mapped and analyzed energy consumption forms at the site, with the objective of proposing improvements. Also regarding energy efficiency, two company sites already have the Leadership in Energy and Environmental Design (LEED) Gold seal – the company’s headquarters at Anhanguera (SP), and the Rio de Janeiro Ilha do Fundão location. Additionally, all manufacturing facilities have obtained and maintained their ISO 14001 certifications. In 2017, the company will undergo a new audit process and revise its quality and occupational safety certifications.

Another objective is to eliminate ozone-depleting substances 100% by 2040 and neutralize carbon footprint by 2030 (more in the Sustainability chapter). One of the things that sets Siemens apart is its constant self-analysis, generating a broad awareness of its carbon footprint. To reduce it, a series of actions is already underway, such as the exclusive utilization of ethanol in company cars, as well as a reduction in the use of SF6 (sulfur hexafluoride) gas and diesel in the industrial area.

In 2016, the company altered the name of its Internal Occupational Accident Prevention Week and added Environment to it, with activities pertaining to the theme.

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An issue being discussed in the area is the inclusion of environmental protection topics in the proposal phase of new projects. The initiative by the Brazilian management team was deemed very positive by Siemens AG’s management, having given it the go-ahead to conduct a pilot project in Brazil. The objective is to prevent all environmental impacts possible of projects executed by Siemens in order to mitigate risks, as well as contribute to the environment and company profitability.
In order for a business to be sustainable, it is equally important to sell well and purchase adequately, managing the supply chain in a complete manner, considering product quality, adequate prices for the operation and alignment of the supplier network with Siemens’ economic, social and environmental principles.

The Supply Chain Management (SCM) area focuses on the supplier selection, qualification, evaluation and development stages. All companies that supply to Siemens are obliged to comply with the “Code of Conduct for Suppliers and Business Partners”.

Through these guidelines, Siemens ensures that companies respect the basic rights of their employees, be responsible towards the environment, adopt appropriate health and safety measures, as well as respect zero tolerance principles in relation to corruption and bribery. In the selection phase, the SCM process requires consulting the “Transparency Portal” in order to avoid that Siemens do business with companies that have some type of sanction or contract restriction with government.

In 2016, SCM processes were streamlined, having introduced electronic tools like online bids, which today account for 44% of purchases made. The Supply Quality Management (SQM) area was also created, which conducts supplier assessments and 103 audits were conducted in 2016.

One of the highlights of this area is the SQM Committee, which comprises representatives from purchasing, quality and Business Units, which objective is to foster dialogue between the two sides, leading to synergies in the planning of audits and in the review of measures stemming from evaluations, creating savings for the company and, above all, looking to mitigate risks related to the financial health of suppliers and non-compliance with Siemens requirements.

In terms of governance, the SCM area, supported by circulars, policies and procedures, ensures that professionals linked to purchasing activities in the business units and corporate areas are in alignment, to ensure the transparency and integrity of Purchase to Pay (P2P), Purchasing and Supply Chain Management processes.

In 2016, the number of supplier audits executed amounted to 103.
The evolution of Siemens’ operations in Brazil has reinforced the culture of continuous process optimization.

Over the last years, the focus on improving company management processes and increasing the recognition of customers and suppliers, led to several changes at Siemens. The objective ranged from quality to excellence in processes and products. For such, the Transformation Program evolved following the methodology of an internationally recognized model and restated the company’s commitment to its responsibilities. With this, the Siemens Excellence System (SES) was born.

SES (more on page 51) involves a strategic assessment, vision, aspirations, mission, internal assessments, in addition to being directly connected to the Integrated Management System (which includes the ISO and OHSAS certifications), among others, and needs to be disseminated throughout the organization for everyone to think in a systemic manner.

One of the tools already absorbed by the company, in this aspect, is the Lean philosophy, which having the customer as focus, is dedicated to analyzing the operation, detecting its points of waste and optimizing processes, with a focus on making them more efficient and agile. In 2016, the company implemented the Practical SPS training earmarked for group leaders in production, assembly and logistics, as well as department heads and supervisors and employees involved in pursuit-of-excellent themes.

Another principle consolidated in 2016 was the approximation of the company’s Quality area with the Information Technology (IT) structure, evolving in the optimization of processes through the Business Process Transformation structure. For this, the Quality area counts on tools designed to ensure the best utilization of data generated in its own activity, absorbing the digitalization concept in its practice.

Results have surfaced and evolved from one year to the next. The Brazilian subsidiary registered 112 projects for the Werner von Siemens Award, the company’s most important award globally, which recognizes key initiatives in company operations all over the world. In 2015, this number had already been significant – 81 projects – but evolved even more last year, reaching the #2 position in the ranking of projects registered.

2016 also included the maintenance process of Siemens’ quality certifications in Brazil, through certification entity TÜV Rheinland (German association for certifying management systems). The process included a review of issues pertaining to quality, environment, occupational health and safety standards (ISO 9001, ISO 14001 and OHSAS 18001).

112

The Brazilian subsidiary registered 112 projects for the Werner von Siemens Award, the company’s most important award globally, reaching the #2 position in the ranking of projects registered.
Improper business practices are not tolerated at Siemens. Since 2007, the company’s Compliance System has been in effect at all operations, establishing tools to ensure a transparent corporate environment.

An internal department is exclusively dedicated to coordinating the Compliance structure at Siemens, and also counts on representatives from business areas and from Siemens Group companies. Employee training is one of the most important items of the Compliance system. In 2016, more than 4 thousand Siemens employees were trained in Brazil. One of the tasks within the scope of Compliance is to investigate processes, which is being done locally since 2014. Siemens’ efforts to combat corruption have been recognized. The company was one of the first in Brazil to receive the Pro-Ethics seal in 2010, having received this recognition again in 2015 and 2016. The Exame Sustainability Guide, which also analyzes company behavior in issues related to transparency and ethics, elected Siemens the top company in the electric-electronics sector.

Tone from the top

Three pillars support Siemens’ Compliance system:

Prevent | Detect | Respond

The Prevent pillar includes policies and procedures, training and a clear and direct communication system.

The Detect pillar includes whistleblowing channels, audits, investigations and controls.

And, the Respond Pillar comprises the company’s mechanisms for clarifying accusations and reinforcing, before society, the zero-tolerance concept towards improper business practices.

Tools

In 2016, an evolution in Compliance tools was the investment in digital systems for monitoring and detecting fraud. One of them is the new Compliance Scorecard app, which allows any employee to check whether he/she can offer, receive or accept an invitation without it being interpreted as an attempt to influence.

A fundamental part of the Compliance system are the whistleblowing channels, such as “Tell Us”, available online at any time and in 13 languages, at https://www.bkms-system.net/tell-us. A toll-free number is also available: 0800 89 24 041.

Collective actions

With a strong presence in several segments of industry, Siemens assumes its responsibility in the task of fostering ethics and integrity also outside the company. One of the initiatives concluded by the company in 2016 was its support to Ethos Institute’s program “Clean Games – Transparency and Legacy in the Rio 2016 Olympic Games”.

Also in the field of collective actions, Siemens also joined Alliance for Integrity, an initiative of the German government that aims to promote the sharing of good practices in business transparency and ethics. As of 2016, Siemens Brazil joined the Brazilian Global Compact Committee (CBPG), a United Nations initiative that aims to mobilize companies to adopt values pertaining to human rights, labor relations, environment and corruption combating.
Throughout 2016, themes related to corruption continued receiving considerable attention from Brazilians. The topic is even perceived by the population as one of the country’s main problems, according to opinion surveys.

Siemens is aware of the relevance of this topic and continuously seeks to establish and disseminate practices that can avoid and punish improper business activities.

Our Compliance system establishes the company’s policies in relation to transparency and ethics, defining rules for Siemens’ business activities to always be conducted in conformity with the country’s laws, as well as rules, codes and procedures. The objective is always to combat organizational fraud and embezzlement. This vision is also valid for past business activities, even leading Siemens to play an important role in Brazil over the last years. Our whistleblowing channel received information about eventual anti-competitive behavior in Brazil’s subway-railway sector. Siemens proactively presented these accusations to the Administrative Council of Economic Defense (CADE) and the Public Ministry in its state and federal levels. Siemens conducted a complete internal investigation utilizing tools of the Compliance system until arriving at the voluntary self-accusation stage.

The efficiency of Siemens’ Compliance system and top management’s commitment to the topic, once again resulted in the company receiving the Pro-Ethics seal from the Office of the Comptroller General in 2016.
Siemens Excellence System

Consolidated in 2016, the Siemens Excellence System (SES) creates mechanisms for the company to maintain its focus on the continuous improvement concept in all areas – industrial and administrative.

The dynamism over the last years created some very characteristic situations in Siemens’ operations. First, with Brazil’s economic growth, the company experienced a significant increase in business activity and posted expressive results. Growing quickly can have some consequences, such as a reduction in control and an increase in process non-conformities. In 2012, the company introduced its Transformation Program.

The objective was to change the company to make it more agile, efficient, desired by the best professionals and engaged in society. Broken down into nine meta-projects, the Transformation Program developed several actions that involved all levels of the organization and brought about important results over the last four years. The next step was to evolve from the ad hoc changes and systematize this improvement into a continuous process, which was institutionally absorbed by the company.

The inspiration behind SES was the National Quality Foundation’s renowned Management Excellence Model (MEG). In Siemens’ case, this model was composed of eight management-excellence criteria. Leadership, Strategy & Plans, Customers, Society, People, Information & Knowledge, Processes and Results. SES’ operation is based on cycles. In the first, an analysis of all management processes is conducted of each of these criteria. Specific actions are proposed based on the results. The second cycle is the definition of annual targets for each criterion.

The company is already harvesting results from actions defined by the SES. One example is the comprehensive Mapping of Siemens Stakeholders in Brazil, in which the company now has a much clearer vision on the profile of each one of these publics. Another action is the company’s Results Map, a study that goes beyond new orders, sales and profit results, pointing out process bottlenecks and areas for improvement.

In 2017, SES’ evolution will implement measures looking to increase engagement, through actions such as governance reinforcement, improvement of top management’s critical review system, making it more continuous and integrated, the training of more internal auditors and intensification of work in network on quality-related themes, which is fundamental for disseminating the continuous improvement culture.
Employees

Policies and benefits

Working in their functions as if they own the company is an unequivocal demonstration of engagement on the part of committed employees.

At Siemens, this relationship is taken to another level with its Share Matching Program, structured so that employees from all over the world can effectively participate in the company’s financial success. It establishes that for every three company shares purchased by an employee and held for three years, the company will add another for free.

Encouraging the Ownership Culture even more, employees are offered the possibility of allocating part of their salary to purchase shares. The purchase is made once a year and can be renewed annually.

Also perceived as a benefit by employees, the home office policy is consolidated at Siemens, generating positive impacts on employee attraction and retention. Success of the home office policy, in which a large majority of Siemens employees work one or two days a week from home, is proven externally, such as in the Guia Você S/A “Best Companies to Work” survey.

Earmarked specifically for women, another benefit considered important in attracting and retaining professionals at Siemens is the 180-day maternity leave option. This possibility is perceived as a huge benefit by female employees and can be translated into numbers: roughly 90% of women who return were after maternity leave, continue at Siemens in the following year. The Anhanguera (SP) site even offers OB/GYN prenatal monitoring services for expecting mothers.

Female employees also receive another benefit: a daycare center allowance, which allocates additional funds to pay for a nursery or to hire a babysitter, valid for children up to the age of two. Due to the economic crisis, the program had to be adjusted in 2016: before, this benefit was extensive to children up to the age of three.

Siemens also offers an eye allowance that benefits roughly 20% of employees. In this program, employees can be reimbursed for lens costs (every 12 months) and glass frame costs (every 24 months), valid also for contact lens purchases.

One of the most important institutions for planning the future of Siemens’ employees is PreviSiemens, also perceived as an authentic tool for attraction, retention and succession planning at Siemens Brazil. In internal surveys, PreviSiemens is perceived as one of the benefits valued the most by company employees, not only for representing additional income when they retire, but also for its notable performance in its almost 30 years of existence. Today, Siemens’ private pension plan includes 6,071 participants, of which 1,208 are former employees. PreviSiemens closed 2016 with a net worth of R$ 1.569 billion.

Sylmara Requena
HR Director

GRI Indicators - G4: 52 • DMA • LA2 • LA8 • LA10
**Labor relations**

The labor relations area continuously works to ensure that we are in conformity with legislation, respecting employee rights and avoiding wear, costs and social losses in labor suits. In 2016, one of them achievements was the joint work with labor unions to consolidate agreements.

This approximation was mainly due to the economic crisis, which led to the need for changes in benefits. Acting proactively, Siemens worked to mitigate the effects of measures, structuring agreements that satisfied the interests of both sides.

**Education and training**

At Siemens, training and continued education are items deemed vital for the success of a professional and sustainability of the company’s own success. In 2016, the company invested more than R$22 million in education and training programs.

One program is the “School of Leaders”, the objective of which is to train company leaders to work in a consequential manner. It was structured according to concepts known as Leadership Pipeline, by Indian consultant Ram Charan, leading managers to permanently reflect about their work (more in Culture and leadership development).

On a global level, the company maintains the Siemens Leadership Excellence Programs, also earmarked for leaders, as well as other specific programs according to business area (Core Learning Programs). A wide variety of content in e-learning format is also available.

**Diversity**

Considered a critical success factor, diversity is addressed at Siemens in several fronts through specific programs, since the company believes that efficient teams are made from the sum of different skills and experiences (in gender, age bracket, ethnicity or culture).

Program “leadership Z” discusses the increase in number of women holding leadership positions, their professional development and encourages them to maintain mentoring and coaching activities. A page on Siemens’ internal social network encourages interaction among participants.

Also important are actions to include people with physical disabilities, such as at the Cabreúva (SP) Distribution Center where, in partnership with the National Service for Industrial Training (SENAI), it promoted the training and contracting of eight employees with physical disabilities to do stockroom services.

Just as important as initiatives is paradigm change that Siemens has reinforced, with recruitment actions to attract qualified professionals, and who eventually have physical disabilities, for job openings.

Consolidated in 2015, the labor opinion initiative in the offer phase is now incorporated as part of the regular process. This avoids that, when executing a project, there’s any discrepancy between the effective and planned labor costs. Siemens’ work in the labor relations area is positively rated and perceived as a competitive advantage in the market, as pointed out in the Guia Você S/A – Best Companies survey.

**Climate and motivation**

For the ninth time, Siemens was recognized in the Guia Você S/A Best Companies to Work survey. The 2016 survey was, once again, based on the opinion of those who work in the company surveyed, lending credibility to the process.

The survey is executed in several stages: application, filling out of form regarding people-management practices, drawing of employees to fill out another questionnaire with their opinions. After undergoing this first filter, the companies classified receive journalists from the magazine who interview the group of employees who were drawn personally. The final result is known after a careful analysis is executed by the magazine independently.

In 2016, Siemens stood out in areas such as professional development opportunities, employee occupational health & safety policies, permanent focus on optimization of productive processes and benefits of the practice adopted and incorporated in the company with the home office policy.
Culture and leadership development

The Ownership Culture concept, present in the Vision 2020 global program, is also incorporated in matters pertaining to leadership at Siemens. One example is the Performance Management Process (PMP).

By incorporating the Ownership Culture, the achievements of each professional in terms of results continue being important, but also how this performance is achieved. And this is analyzed objectively through three essential elements (Behavior, Leadership and People Orientation), subdivided into eight criteria: Respect, Focus, Initiative and Execution, Courage, Decision and Courage, Prioritization of Siemens, Motivation and Engagement, Empowerment and Trust and Honesty, Openness and Collaboration.

Brazil will also be implementing, on a pilot-program basis a 360° assessment tool for all employees, based on the Ownership Culture concept. Participation is optional and anonymous, but engagement signals the willingness of each employee to be evaluated by his or her colleagues and contribute to the construction of the Ownership Culture.

In March 2016, 120 company leaders participated in the first edition of the Leadership Summit, and had the opportunity to exercise a different aspect of their own skills – emotional intelligence that impacts decision-making. This event will be held annually.

Talent acquisition

The acquisition of young professionals is of vital importance for Siemens’ continued success. One of the most efficient tools towards this and is the traditional Talent Development Program (PDT).

PDT has been in existence since the 1970s. In 2016, the company received roughly 5,000 applications from people interested in 65 job openings, which means a candidate-job position ratio comparable to the most disputed university programs. Historically, the average rate of PDT interns becoming full-time employees is 72%.

Along the same line of succession sustainability, the Trainee Program identifies, among employees, professionals with a leadership profile. In 2016, eight professionals were selected to work on real projects outside their original area. At the end, the participant must present his or her project, including measurable and non-measurable gains, to the company.

The Excellence@Finance initiative continued in 2016, in which Siemens visits universities in this area with the objective of attracting professionals in the segment. A curricular internship program is also available at Siemens, contributing to professional development and also preparing for succession.
**Occupational Health & Safety**

The Zero Harm Culture program, implemented globally by Siemens, acts as a catalyst of initiatives, the objective of which is clear and nonnegotiable: absence of accidents at company sites and operations. In Brazil, the set of initiatives has yielded significant achievements.

In addition to the main objective being achieved – protect the lives and quality of life of our employees –, the reduction in number of work-related accidents also led to an effective cost reduction of R$2 million in 2016, related to the Accident Prevention Factor (FAP).

The traditional Internal Week for Work-Related Accident Prevention (SI-PAT) this year also included environmental actions, having been renamed Internal Week for Work-Related and Environmental Accident Prevention (SI-PATMA). Each day of the week was dedicated to a theme, and explored through several actions at all Siemens locations in Brazil, during several parts of the day.

Also standing out in the organization this year was a tool created to disseminate the safety theme among all employees. It is based on dialogue between manager and teams, with the objective of leveling the basic knowledge about Zero Harm Culture. Another important initiative in 2016 was the “Testimonies That Save Lives” campaign, which invited all employees to talk about events that happened – or were avoided – in the area of safety, having compiled 86 testimonies.

In terms of health, Siemens maintaining its vast list of initiatives. Since 2015, Siemens has received Healthy@Siemens certification from Siemens AG, which attests the quality of actions. Actions implemented include health training on themes such as eating, vaccination, zika virus, quality of life among others. With this initiative, we trained 63% of employees.

The usual vaccination campaigns at Siemens were maintained in 2016, with free flu vaccines for employees and interns, as well as dependents and third parties at a reduced price. 50% of employees were vaccinated. Health Week 2016, held in August, gathered 2,057 participants from all over Brazil, with activities held at all locations.

The “Save Your Skin” program that focuses on preventing skin cancer reached 260 employees from Anhanguera, Jundiaí and Cabreúva, in São Paulo state. The “Good Eyesight” campaign was also held at three company locations, offering eye consults to 1,005 employees. The Pink October and Blue November campaigns focus on preventing breast cancer and prostate cancer.

Another action introduced this year was the Anti-Smoking Campaign, with information and suggestions related to the topic. Employees could also do a test to discover their level of addiction.

Employee pregnancy monitoring is another initiative that’s perceived as a key benefit. At the Anhanguera (SP) and Manaus (AM) sites, every female employee can consult regularly with a gynecologist and obstetrician, and even do the prenatal at the company’s in-house clinic. In 2016, 1,237 consults were provided to employees. An evolution of this initiative last year was Program Nest, which comes before prenatal and provides orientation to employees on family pregnancy plans.

Reaching its third class, Program Perspective continues offering orientation for the after-retirement period, with lectures on health, relationships, leisure, personal finances and entrepreneurship. These initiatives make us stronger and the company healthier and safer.
Corporate citizenship

We foster the creation of a favorable environment that encourages employees to volunteer, as this is also an opportunity for developing technical and behavioral skills.

Siemens Brazil Volunteering Program

The program was introduced in 2012 in an institutionalized manner, even though many activities were already executed before. Its online platform allows employees to interact with all company locations. The number of volunteering hours dedicated adds points in the Point by Point program, which distributes prizes.

Main results in 2016

**Werner von Siemens Award**

In 2016, Program Formare received the Werner von Siemens Award during the Siemens Business Conference, in Germany. The category it won, Siemens Matters, awards the effort of teams in favor of integrity, effort and cooperation. The Sustainability team in Brazil received the award on behalf of the volunteers, which is from where the initiative functions.

**Volunteering Program**

- 13 macro projects in 15 cities throughout the country;
- 579 volunteers;
- 6,120 hours of work are donated.

The objective was to engage at least 10% of employees. However, Siemens will not reduce its efforts to engage new volunteers, despite having achieved this target in 2016.

**Main Volunteering Program**

**Social Responsibility@PDT**

Interns from the Talent Development Program (PDT) execute volunteer work, training competencies and consolidating teambuilding.

**Formare Educators**

Training youngsters at the Jundiaí (SP) location (more in Siemens Foundation).

**EduComÉtica**

Activity in the Compliance area targeted at schools (more about EduComÉtica in Compliance).

**Social@Finance**

Social action conducted by employees from the financial area in São Paulo and Jundiaí (SP). Roughly 130 volunteers who re-vitalize schools surrounding company units.

**Green Team**

The concept of volunteers in environmental actions started out at the Manaus (AM) unit and was absorbed by other locations, which also develop social activities at institutions.

**Local networks**

Teams from regional sales offices throughout the country also volunteer in school activities in their regions.

**Hermann Wever Ecological Trail**

Environmental education program at the company’s headquarters in Anhanguera (SP), which aims to raise awareness of children about the importance of protecting the environment. Monitoring activities are done by volunteer employees and former employees.

**Emotional Intelligence Volunteer**

Partnership with Siemens Foundation, the program prepares Siemens volunteers to develop the emotional intelligence of students and professors at schools surrounding company locations.

**Pink October and Blue November**

Actions targeted at drawing attention to breast cancer (in October) and prostate cancer (in November).

**Donations**

In 2016, Siemens Brazil made donations totaling R$2,955,074.09 to actions that support education quality in Brazil.
Siemens Foundation

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.

Siemens Foundation in Brazil
In 2016, Siemens Foundation celebrated its 30th anniversary. A ceremony with the participation of Siemens Stiftung’s executive director, Dr. Nathalie von Siemens, marked the date. To also celebrate the anniversary, São Paulo hosted for the first time the Global Alliance of Siemens Foundations event.

In 1986, Siemens Foundation was named the Peter von Siemens Foundation, having always supported or conducted dozens of social-promotion initiatives. As a Civil Society Organization of Public Interest (OSCIP), Siemens Foundation Brazil works in alignment with the Corporate Citizenship strategy, with a focus on education and basic technologies.

30 years
In 2016, Siemens Foundation celebrated its 30th anniversary

Project Experimento
Earmarked for early childhood education professors and elementary and high school teachers, the initiative is based on the principle of learning through investigation. In 2016, the experience with Project Experimento was expanded through a partnership with Instituto Ayrton Senna. With the Institute’s participation, the Siemens project was divulged in more than 90 municipal schools, including municipalities in the Northeast region of the country. Project Experimento has already impacted roughly 500 professors and more than 20,000 students in 21 cities throughout Brazil. The project will be expanded in 2017 through the partnership with schools associated to the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Escola Formare
Project Formare provided Siemens Brazil international recognition in 2016. The Siemens Foundation initiative, held at the Jundiaí (SP) complex, was the recipient of the Werner von Siemens Award in the Siemens Matters category, where the winners are announced annually during the Siemens Business Conference. The professional learning program develops the potential of youngsters from underprivileged families. Every year, 20 high school students between the ages of 16 and 18 undergo the selection process, take the course program and graduate in Electromechanical Production and Assembly. The classes are taught by employees, who participate as volunteer educators, whereby their hours are donated by Siemens. The program is a partnership with Fundação Iochpe.

Emotional Intelligence at School
Maintained by Siemens company for several years, the Emotional Intelligence at School program benefits students and families who live near the company. Conceived by Grupo Ser, the program’s objective is to improve the performance of elementary students.

Scholarships
Another benefit provided by Siemens Foundation Brazil is the scholarship program for employee children, respecting socioeconomic criteria and functioning as a complement to educational investment. In 2016, the Foundation supported 38 employee children nationwide.

Global Award – Empowering People Award 2016
Introduced in 2015 by Siemens Stiftung (Siemens Foundation Germany), the award recognizes technology projects that help people in developing regions to overcome basic need problems. In the 2016 edition, a Brazilian project on re-utilizing bathwater was one of the 23 finalists.

More about Siemens Foundation Brazil at: http://www.siemens-fundacao.org/
Awards and recognition

In 2016, several publications, companies and entities dedicated recognition to Siemens:

**Exame Sustainability Guide**
Siemens was recognized for the second consecutive year as the most sustainable company in the electric-electronics sector in the Exame Sustainability Guide.

**Pro-Ethics**
In 2016, in a repeat of last year, Siemens was recognized as a Pro-Ethics company by the Office of the Comptroller General (CGU). Created in 2010, the Pro-Ethics seal was awarded to Siemens in its inaugural year, and has been one of the few companies to be always present.

**150 Best Companies to Work**
For the ninth time, Siemens ranked among the Best Companies to Work in the Guia Você S/A, one of the main references of good people-management practices in Brazil.

**Latin America Excellence Communications Award**
The “What Matters for Brazil, Matters for Siemens” campaign was the recipient of the Latin America Excellence Communications Award.

**Época Negócios**
In the “100 Most Prestigious Companies in Brazil” award, Siemens was the winner in the Industrial Solutions category.

**Kaizen Award**
The Siemens Manaus (AM) unit received the Kaizen Award in the Quality Excellence category, thanks to the program to increase the plant’s operational efficiency.

**2016 Woman Excellence Award**
Siemens Healthineers engineering-employee Bruna Tavares received the Woman Excellence Award, presented by the São Paulo State Center of Industries. She is the first deaf biomedical engineer to graduate in Brazil.

**Eletricidade Moderna Magazine Award**
In the “Products of the Year” awards and “Quality Award”, Siemens ranked in the top positions in the following product categories: contactors, buttons, switches and signalers, circuit breakers, motor protection relays and soft starters.
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