

A woman with long dark hair, wearing a light blue striped shirt, is looking into an open refrigerator. She is holding a banana and a loaf of bread. The refrigerator is filled with fresh produce, including broccoli, tomatoes, and jars of sauce. The image has a teal overlay.

SUSTAINABILITY REPORT 2017 & 2018

embraco

message from leadership

Transformation is a pillar of our culture and — together with innovation and a spirit of winning — is among our competitive advantages

Message from Leadership 102-14

We're a renowned global refrigeration company guided by the purpose to promote quality of life – to our employees, customers, communities and partners – through innovative solutions. To sustain it in more than 80 countries where we have commercial presence, Embraco seeks to transform itself in terms of processes, products and services, considering our people's development and the sustainable contribution to our customers' success as key factors.

Among the various implemented innovations, it's worth highlighting the evolution of our market positioning: from a hermetic compressor company to a provider of integrated solutions to our customers' systems. On the other hand, we've continued to focus on quality delivery combined with reduced environmental impact. This is possible through an increasingly efficient, high-performance portfolio with state-of-the-art technology.

Aligned with this continuous transformation concept, in early July of 2019 an important chapter of the company's history has been started: Nidec Corporation,

the world's leading comprehensive motor manufacturer, successfully completed Embraco's acquisition that was incorporated into Nidec Global Appliance Division. Since then, I've been having the honor to lead a knowledgeable team in which the desire to make the difference in everyone's quality of life is notable.

In the following pages, you will be able to check some of our business' highlights during the last two years (2017/2018). Furthermore, this report officializes our renewed commitment to the 10 principles of the Global Compact and reinforces our support for the 17 Sustainable Development Goals established by the United Nations (UN).

Good reading!

Valter Taranzano
CEO Nidec Global Appliance Division



|| As a global refrigeration company, Embraco is driven by a single purpose: providing quality of life through innovative solutions. ||

our strategic topics

Sustainability goes beyond developing innovative solutions and ensuring efficient operations: it's part of our company's beliefs

Our strategic topics

Published every two years, our sustainability report presents key developments related to Embraco's material topics. It provides quantitative and qualitative information about our operations from January 1, 2017 to December 31, 2018, and has been developed in accordance with the Global Reporting Initiative Standards—Core option, without independent assurance. [102-48](#), [102-49](#), [102-50](#), [102-52](#), [102-54](#), [102-56](#)

In 2018 we published our Communication on Progress (COP) related to 2017, and in the previous year the sustainability report for the two-year period 2015 and 2016 (GRI G4). [102-51](#)

For strategic reasons, no financial information is disclosed and the results of operations are disclosed to shareholders only. [102-45](#)

How we manage economic performance [103](#) | [201](#)

As global main policies, we prepare internal financial reports in accordance with the International Standards and Policies described in US GAAP (United States Generally Accepted Accounting Principles), and for local official financial reports, in accordance with the International Financial Reporting Standards (IFRS).

Targets for economic performance affect profit-sharing results for employees. All financial KPIs are tracked on a monthly basis and forecasts for the current month are issued on a weekly basis.

Our results and reports are audited by global firms to ensure financial disclosures are accurate. To assure compliance with our operations, we count on a five-person Internal Control team that operates full time and audits all units.

Financial targets are developed as part of an annual process, and our annual budget is validated both within the company and by our controlling shareholder. Since 2017, we have used zero-based budgeting methodology for both budget forecasting

and budget control and execution, for all expenses within the company.

We report on our financial results in monthly meetings with the controlling shareholder's CEO, CFO and vice president of Embraco business.

Externally, we are part of a group that is listed both in Brazil (B3) and in the US (Dow Jones), and our audited and consolidated financial information is included in national disclosures and transmitted on a quarterly basis to our controlling shareholder.

GLOBAL COMPACT AND MATERIAL TOPICS

102-12 102-46 102-47 103-1

We are signatories of the Global Compact since 2004 and have developed projects and initiatives supporting specific targets within the Sustainable Development Goals (SDGs) that are related to our material topics.

Between 2017 and 2018 we redesigned our sustainability strategy. At the diagnosis phase, we first analyzed key information on global trends, risks and

challenges and then rated their importance within our business and operational model based on stakeholder impact. [102-44](#)

This process included a document review, customer interviews as part of an annual performance assessment and satisfaction survey – with each source of survey data matched to the relevant stakeholder group. After assessing general aspects, we focused on

stakeholder perceptions reported in internal documents, and used their inputs to validate the material topics identified in 2015 exercise. This resulted in nine topics representing the economic, environmental and social issues that are especially material to our operations and activities. [102-44](#)

We develop projects and initiatives on well-defined fronts within our strategy, and which help to connect the Sustainable Development Goals (SDGs) to our material topics.

Our stakeholders [102-40](#)



Customers



Government



Shareholders



Employees



Outsourced
workers



Suppliers



Communities
surrounding Embraco's
operations



Research,
development and
education institutions

We identify stakeholders according to the extent level that our business model impacts them. [102-42](#)



STAKEHOLDER ENGAGEMENT

The materiality process included stakeholder engagement activities such as surveys with strategic groups (sales representatives, customers and employees), internal and external events, corporate panels, community events, assessment processes, joint calls for projects, collective agreements among others.

This exercise was also informed by documents formalizing our relations and interactions with each stakeholder group. These can include customer

surveys conducted during the reporting period on aspects related to preferences, needs, satisfaction and dissatisfaction. [102-43](#) [102-44](#)

Priority topics identified from these documents were then used to validate the ones listed in our materiality exercise in 2015. [102-44](#)

Our strategy is focused on three fronts:

Compliance and reputation [within and outside the organization]

1

SUSTAINABLE SOLUTIONS

- ▶ Research, development and innovation in products, services and processes. [within and outside the organization]

2

SUSTAINABLE OPERATIONS

- ▶ Employee training, education and development. [within the organization]
- ▶ Occupational health and safety management. [within the organization]
- ▶ Environmental management and efficiency (energy, water, waste and effluents). [within the organization]

3

SUSTAINABLE PARTNERSHIPS

- ▶ Promoting best practices in sustainability across the supply chain. [within and outside the organization]
- ▶ Quality and customer satisfaction. [within and outside the organization]
- ▶ Engagement with society. [Outside the organization]

A focus on energy efficiency and climate change [within and outside the organization]



OUR GLOBAL PRESENCE

Principles and values
Governance
Compliance



SUSTAINABLE SOLUTIONS

Research, development and innovation in products, services and processes
Delivering energy-efficient solutions and reducing environmental impact throughout the product life cycle is a strategic imperative for our Research & Development department (read more on page 16).



SUSTAINABLE OPERATIONS

At the workplace
We develop and engage our employees around a culture of diversity, supporting their professional security and growth. Occupational safety management is top-of-mind at Embraco, as is operational management and efficiency performance across energy, water, waste and effluents (read more on page 24).



SUSTAINABLE PARTNERSHIPS

Collaboration and co-creation in the value chain
We invest in quality and customer satisfaction, promote best sustainability practices in the supply chain, and support the communities where we operate through social programs and volunteer work (read more on page 42).



OUR APPROACH TO SUSTAINABILITY

Sustainability goes beyond developing innovative solutions and ensuring efficient operations: it's part of our company's beliefs. Our team is committed to generating positive impact and sharing value with

business partners, customers, suppliers and society. That is how we sustain the growth of the business while delivering results in line with our mission of bringing people a better quality of life.



OUR SUSTAINABILITY VISION IS GLOBAL AND INTERCONNECTED

We have a global strategy for managing economic, environmental and social aspects that is adapted by our local teams to suit the needs and context of each operation.

Our sustainability team helps to strengthen and enhance the positive impacts from our efforts across the company.

For each of our material topics, a department has been assigned responsibility for developing strategies and monitoring results.



Exame Sustainability Guide

In 2018 we were ranked by *Exame Sustainability Guide* as one of Brazil's most sustainable companies for the ninth consecutive time. Embraco was recognized in the "Electronics" category for a case study on engagement around water management (read more on page 40).


our global presence

Our operations started in Joinville (SC, Brazil) in 1971 and since then have expanded ¹⁰²⁻¹

Global presence¹ 102-3 102-4 102-7

1 out of every 5 compressors worldwide carries the Embraco brand

 a commercial presence
**in more than 80
countries** 102-6

 a production capacity of
37 million
compressors per year

 **11 business**
units

 **10,000**
employees

 **47 research
laboratories**
on four continents

 annual R&D
investment of
3% to 4%
of net revenue

 **Approximately 500 people**
engaged in Research & Development—with 100
staff working at partner universities

OUR PRINCIPLES 102-16

MISSION

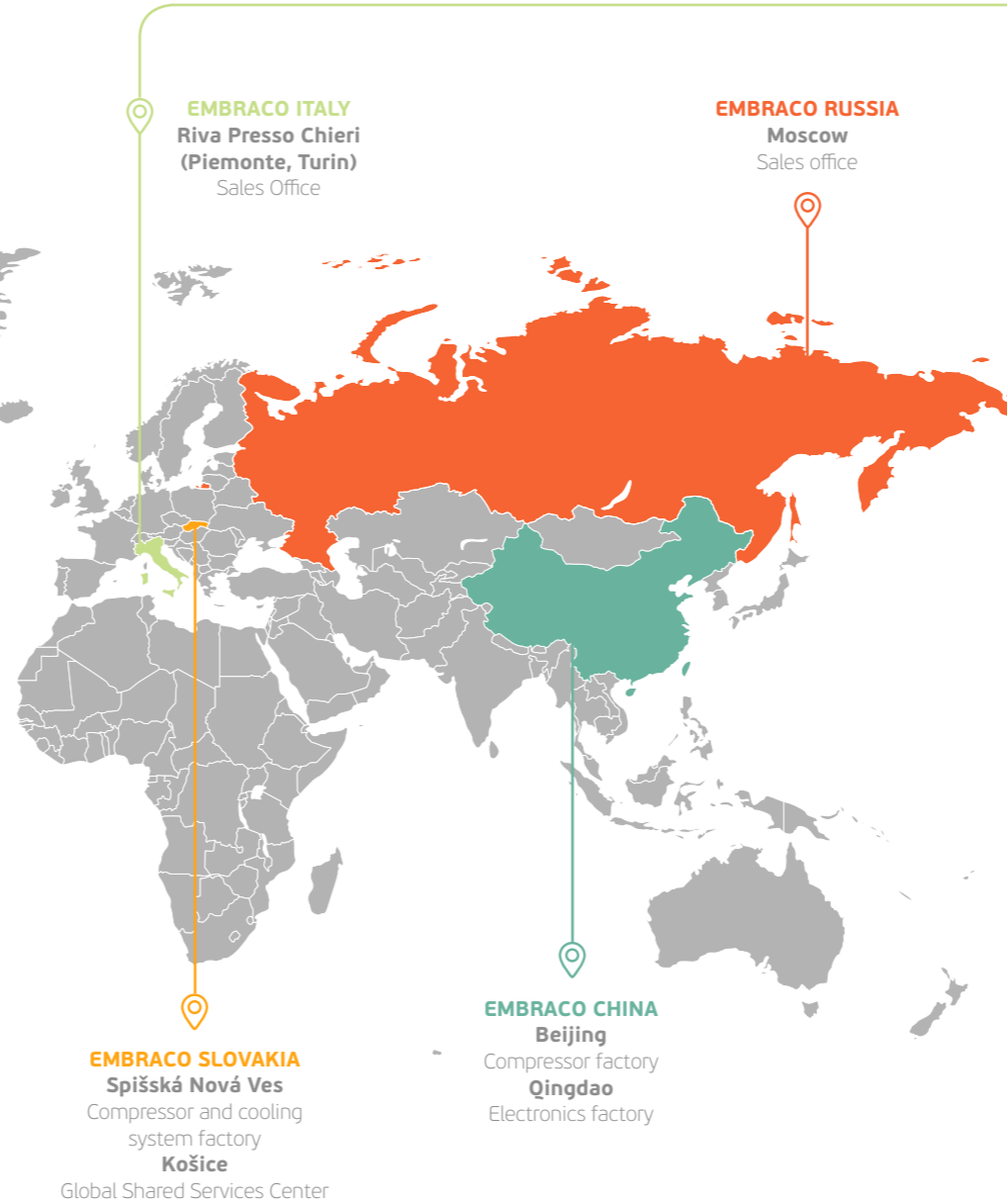
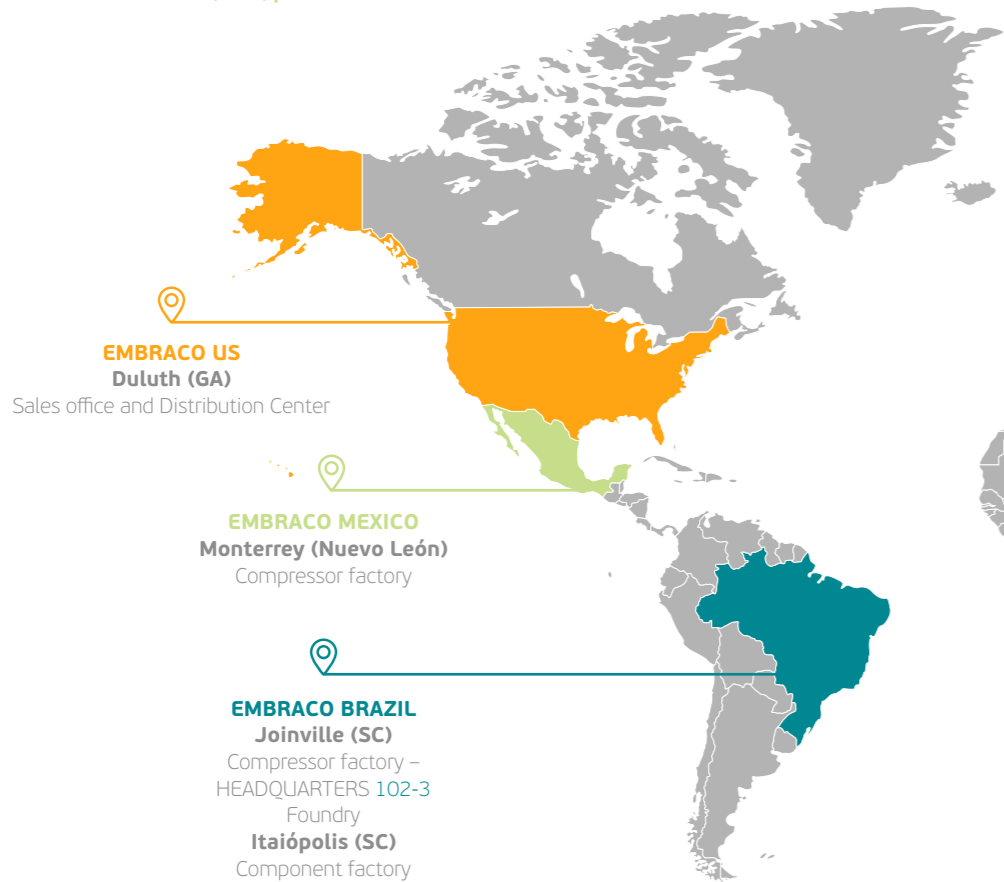
Provide innovative
solutions for a better
quality of life.

VALUES

Respect
Integrity
Diversity & inclusion
Teamwork
Spirit of winning

1. In July 2019, Embraco was acquired by Nidec Corporation, Japanese and world's leading comprehensive motor manufacturer. The data below, as well as all data in this report, reflect information prior to this fact.

Our market presence goes back 48 years to our first operation in Joinville (SC), southern Brazil.¹



Reindustrialization agreement in Italy [102-4](#) [102-7](#)

In July 2018 signed the reindustrialization agreement of our plant in Riva Presso Chieri (Turin, Italy). It came as a result of a joint effort and continuous collaboration among employee representatives, government authorities and local agencies that enabled all 413 plant employees to be transferred to Ventures, an Israeli-Chinese company producing solar powered cleaning robots and water purifiers.

Italy is among our strategic markets and our customers there will continue to be served by a sales office and a well structured logistics network for product marketing and distribution.

1. Embraco is a private entity organized as a limited company. [102-5](#)

OUR GOVERNANCE STRUCTURE

Along 2017 and 2018, we counted on a solid corporate governance structure that leads our business and strategy, driven by experience and a pioneering spirit. Our highest governance and decision-making body is the CEO's staff, comprising five vice presidents (for Operations, Research & Development, Finance, Human Resources, Communications & Sustainability, and Sales & Marketing) and two directors. The CEO's staff is responsible for: [102-18](#)

Setting our strategic direction:

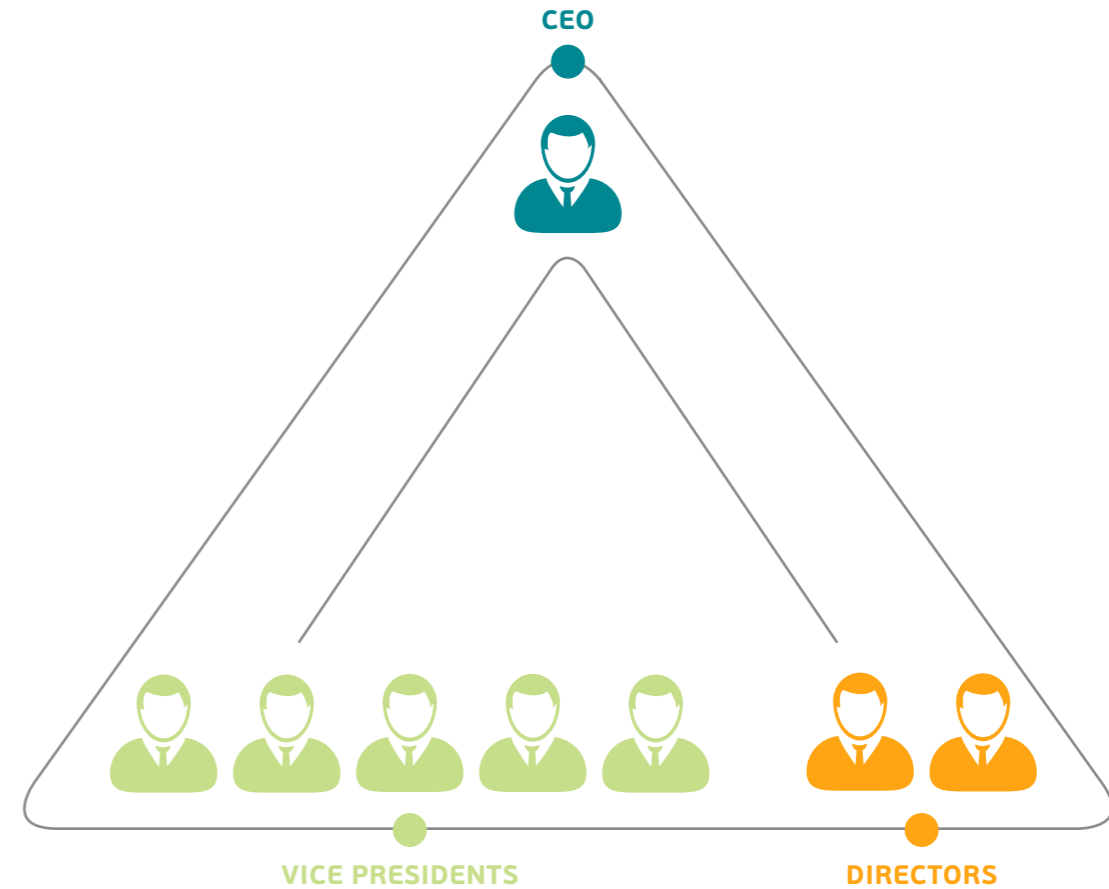
- Tracking the performance of the business and executives against our strategy;
- Setting targets aligned with our mission and long-term goals.

We have a solid corporate governance structure that leads our business and strategy, driven by experience and a pioneering spirit.

RISK MANAGEMENT

Our vice presidents and directors assess key decisions on economic, environmental and social aspects affecting our results. They are also responsible for managing risks and potential impacts related to our activities and operations, assessing significant aspects based on the precautionary principle. [102-11](#)

The CEO's staff meets on a weekly basis to discuss business results, legal matters, health and safety issues and relevant processes in order to mitigate risks and identify opportunities for improvement.



CEO's staff structure in 2018.

COMPLIANCE

Our reputation directly reflects the way we do business. Embraco's legal team is responsible for managing Compliance in matters related to ethics within our activities. The Legal department is responsible for:

- Providing training and addressing reported ethics violations;
- Periodically reviewing the organization's internal documents and procedures for continual improvement;
- Managing available reporting channels.

All stakeholders have access to our ethics and compli-

ance guidelines through Code of Ethics, our Global Compliance Policies and Charter of Organizational Principles and Values.

We believe organizations must be accountable in their dealings with local and international governments. In line with the United Nations Global Compact, it is our view that companies have a duty to work against corruption in all its forms, including extortion and bribery.

Anti-bribery

We have subscribed to the principles of the United Nations Global Compact and actively work against extortion, bribery and other forms of corruption.

Ethics and reporting channels 103-2

We use an independent system to receive and manage reports on concerns. Reports received through other channels (e.g. email, telephone or directly from employees) are entered by the Compliance team into the report management system. All reports and concerns received are reviewed internally by designated investigators. Formal feedback is given to the parties making the reports and action is taken where appropriate.

Our Ethics Committee is composed of representatives from Embraco's Legal, Human Resources and Corporate Security departments.

Ethics-related documents and initiatives

- We communicate our principles and values to business partners through our Code of Ethics.
- We ensure compliance with the US Sarbanes-Oxley (SOX) Act to reduce the risk of financial fraud.
- We conduct periodic audits on our operations.
- We have procedures in place to implement our global compliance policies on matters such as donations and freedom of association.



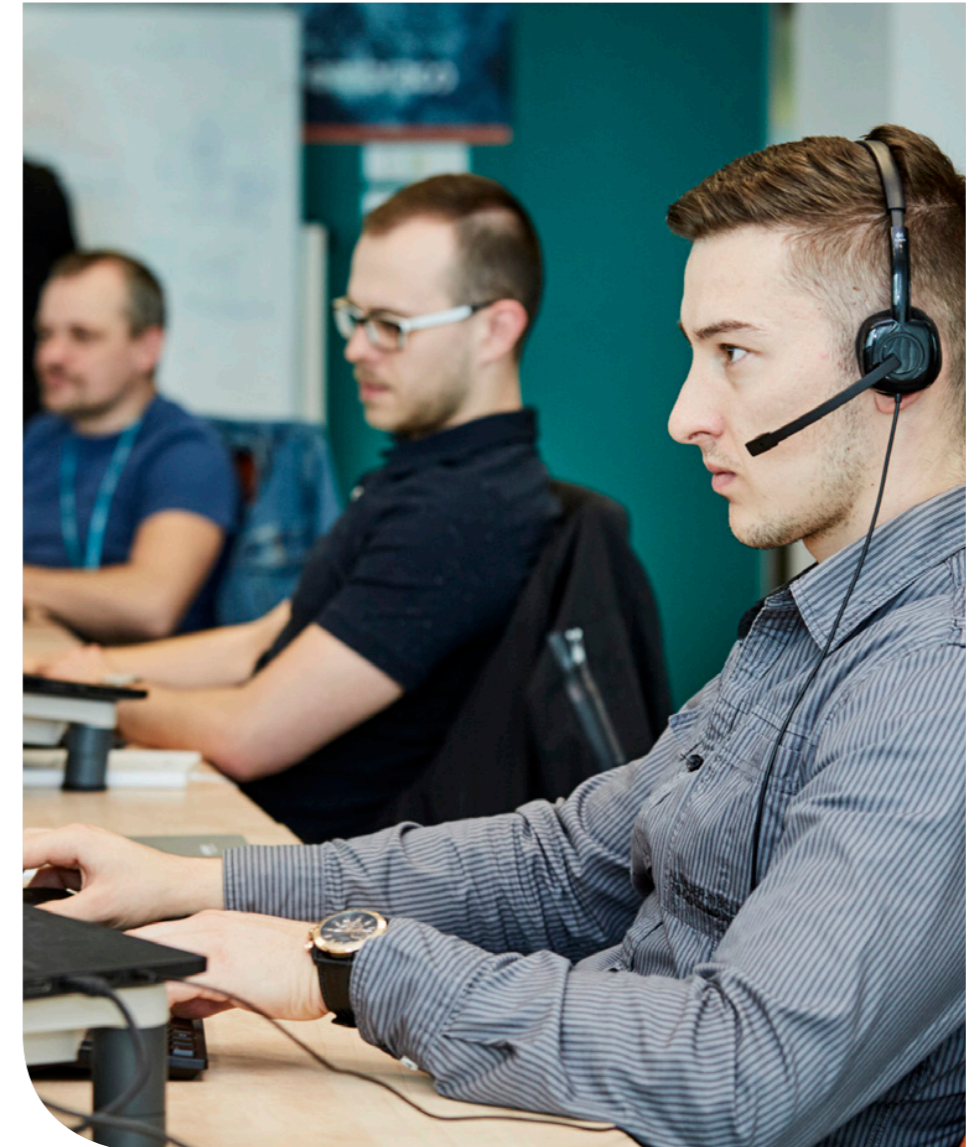
Reporting channels

Employees, suppliers, outsourced workers and customers can report violations of Embraco's Code of Ethics online. Reports are handled in confidence and persons making reports can remain anonymous, protected against retaliation.

ETHICS TRAINING

Ethics and compliance training	2017	2018
Number of employees	1,400	368
Number of sessions	47	19
Percentage of leaders	75%	100%
E-learning compliance programs	2017	2018
Number of employees	100% of administrative functions	100% of administrative functions
Number of sections	3	2

We have 17 Global Compliance Policies addressing important matters such as antitrust laws, diversity, equal opportunity and respect in the workplace, environment, health and safety.



sustainable solutions

Energy efficiency, innovation and high performance are the guiding principles in developing our product portfolio

Sustainable solutions: innovation, energy efficiency and high performance



SUSTAINABLE SOLUTIONS: research, development and innovation in products, services and processes

We are committed to delivering solutions that are highly energy efficient as a strategic imperative for our markets and for our Research & Development department, which works continually to find ways to reduce environmental impact throughout the product life cycle.

As a market leader in our segment, we offer solutions and services for household, commercial (e.g. supermarket, food service and medical applications), distribution and aftermarket applications.

We develop innovative solutions that deliver better quality of life and are responsive to global trends such as:

-  Quality in food preservation;
-  Energy efficiency – products that are increasingly energy efficient and innovative in the use of natural refrigerants;
-  Competitiveness—solutions with smaller footprints as part of a miniaturization strategy.

We have taken an increasingly outside-in approach to innovation.



We develop market-leading product portfolios by first gaining insight into customers' challenges and needs.

Differentiation through a portfolio that delivers efficiency, reduced life-cycle impact, superior quality and reliability.

We act as business partners to our customers, co-creating refrigeration solutions with them.



We offer a complete platform combining high-quality, high-performance compressors, services and solutions.

Fresher foods and more energy-efficient refrigerators

HOUSEHOLD REFRIGERATION 102-2

Hermetic compressors for domestic freezers and refrigerators.

With a focus on consumer perspectives and customer needs, we have worked to deliver solutions that are increasingly silent (for improvements in comfort), efficient (for lower electricity bills) and more effective in food preservation.

CERTIFIED AND APPROVED FOR MARKETS WITH UNSTABLE POWER SUPPLY

Embraco FMX solution has been certified and approved by the VDE Institute with a 25-year lifetime. In markets such as India, this solution handles wide voltage fluctuations (stabilizer free) and is designed to work reliably and safely maintaining refrigerators performance integrity despite energy fluctuations.

Initially developed for the household refrigeration market, the technology has since been incorporated into our commercial range.

Variable speed technology: 20 years of energy-efficient innovation

According to the Brazilian Energy Research Company (EPE) has shown that refrigerators account for 20% of total electricity consumption in an average household. Research findings such as these and a global drive to reduce energy consumption have informed the development of increasingly efficient solutions at Embraco.

Our Fullmotion Inverter solution, developed 20 years ago, was the first variable speed technology in the refrigeration industry. This solution allows compressor capacity to be adapted to the freezer's or refrigerator's heat load.

With each new generation we have delivered a 5% improvement in energy efficiency: from our first model—VEM—to one of our most recent models—VESF—compressor efficiency has improved by a total of 32%.



In 2017, in China, we launched the FMX (Fullmotion inverter compressor), our most compact and optimized solution.

Full portfolio for Light Commercial segment

COMMERCIAL REFRIGERATION¹⁰²⁻²

Hermetic compressors, condensing units and sealed units for commercial applications - food service, food retail, medical and scientific applications.

Embraco's Fullmotion Inverter variable speed solution is also ideally for supermarket and food service applications, and is one of the most energy-efficient technologies available.

Our most recent product launch for this segment is FMFT, the first dual-voltage compressor for commercial refrigeration applications and one of the most efficient solutions available in this capacity range. Developed for food retail, medical and food service applications, the solution delivers energy savings by up to 30%. As a dual voltage system, FMFT is suited for use in different regions and in markets with energy fluctuations.

In addition to Fullmotion technology, we also launched a new Scroll compressor, providing a very wide portfolio from 2 to 13 hp, and NJX, a new 2 hp single piston compressor delivering strong reliability and low noise levels.

For the European market, we recently launched **Bioma**, a condensing unit with new silent features for food service and convenience store applications, and Sliding Units offering easy maintenance and fast installation for reduced costs of ownership at convenience stores and supermarkets.



Plug n' Cool solution delivers 30% energy savings for supermarket chain

In 2017 Mig Atacarejo, a Brazilian supermarket chain, replaced its legacy refrigeration system with Embraco's Plug n' Cool solution—a self-contained unit designed for reach-in applications.

The replacement delivered better food preservation performance in display cases and increased cooling capacity with 32% lower power consumption, while also increasing available display space by 25%.

As a plug-in system, the solution reduces installation time by 70% and is easier to service and clean. It also operates on natural refrigerants, such as R290 (propane).

Learn more about our products:

<https://products.embraco.com/products/compressors>

Digital solutions for more than 80 countries

DISTRIBUTION AND AFTERMARKET 102-2

We supply spare parts to distributors, retailers, installers and contractors providing equipment servicing on-site.

In addition to business units in seven countries, we also have a network of local distributors and consultants that work with our sales and engineering team providing technical support in locations such as Australia, New Zealand, India, Japan, Indonesia and Thailand.

These specialists actively listen to and work to address the needs of customers, specifiers (food and beverage manufacturers) and consumers.

REFRIGERATION CLUB

Another important channel for interaction with stakeholders—and which delivers on our commitment to sharing content and knowledge—is our Refrigeration Club, a communication channel originally launched as a print magazine in 1984. An online version was launched five years ago, as well as content available on Facebook.

Global refrigeration trends, technical and educational content are available in seven different languages.



Toolbox: the contractor's app

Embraco's Toolbox app (available from App Store and Google Play) provides tools to support contractors in field-work. The app features:

- A troubleshooting section that supports contractors in on-site equipment assessments.
- Support for sales representatives in recommending the best-suited compressor models for each application.
- Embraco's complete product range, cross-references to comparable compressor models, refrigeration store locations, a refrigerant gas scale, and other functionality.

New business: an innovative approach to the cold chain 102-2

We work to address market needs by developing services that create value for our customers and ultimately improve the end-consumer experience.

THE INTERNET OF THINGS FOR PRODUCT MANAGEMENT AT THE POINT OF SALE

In 2017 we launched diili, a disruptive service platform based on a complete Internet of Things (IoT) solution. Through this system, managing commercial refrigerators at points-of-sale becomes more strategic by delivering intelligence in the use, maintenance, energy performance and sales effectiveness of equipment in the field.

diili presents a business model that delivers real value to equipment manufacturers, beverage and food brands and retailers, translating in a practical way the innovation concept advocated by the company's New Business area.



Innovating for the future

We invest 3% to 4% of our annual revenue in Research & Development. Embraco has 47 laboratories and 500 engineers dedicated to innovation, including around 100 researchers working at leading engineering universities.

As a result, 59% of our revenues were derived from products launched during the past six years.

This constant drive for innovation has challenged us to adopt an increasingly agile and simplified approach. Our goal is to integrate internal processes with customer processes to build a seamless development workflow that delivers value to both sides.

FASTER DELIVERY

Process improvements implemented over the last three years have reduced product development times from 35 to 15 months.

The time taken to deliver samples to customers as part of the pre-implementation validation stage has

also been reduced. This has been achieved through process reviews and by identifying opportunities for improvement in efficiency, safety and quality.



PIONEERISM IN NATURAL REFRIGERANTS

Our product development practices are aligned with emerging regulatory requirements in Europe, which are among the most stringent in the world on aspects such as health, safety and quality.

We were pioneers in the use of natural refrigerants such as propane (R290) across all product segments, and we have led the development of products for our commercial range. We also have an extensive product range employing alternative and transition refrigerants for customers that have not yet migrated to hydrocarbons.



Sharing knowledge

Energy efficiency and the use of natural refrigerants are among the topics addressed in our training programs for customers (OEMs, distributors and retailers) and for industry professionals such as contractors. Embraco also participates in events in which we provide thought leadership and engage in constructive debate.

A company of inventors: we have more than 3,000 patents

Embraco currently has 1,200 granted patents, resulting from both our own innovation efforts and collaborations with globally recognized universities. Including expired patents, Embraco boasts a total of 3,000 patent applications to date in Europe, the US, Asia and Brazil, placing us among the top private companies for patent applications in the US and Brazil.

In the last three years Embraco has filed approximately 200 patents. Some applications are linked to recently launched projects, such as VESF inverter technology (read more about our *Fullmotion Inverter*

solution on page 18) and FMX, which is part of our latest generation of inverter compressors for household and commercial refrigerators. Our FMX solution involved a total of 74 patent applications filed between 2016 and 2018 to protect the intellectual property contained in most components.

INNOVATION ECOSYSTEMS

Our culture of innovation reaches beyond our factory walls and into universities and research institutions, which act as key partners in sharing knowledge and developing solutions that are responsive to market

expectations. In Brazil, our partnership with the Federal University of Santa Catarina (UFSC) goes back 37 years.

We also collaborate with startups on innovation and developing solutions through joint projects, partnerships, calls for projects and events.

We have developed projects with partners such as:

- The Federal University of Santa Catarina (Brazil)
- The State University of Santa Catarina (Brazil)
- SENAI (Brazil)
- The Regional University of Blumenau (Brazil)
- UNISOCIESC (Brazil)
- Instituto Tecnológico y de Estudios Superiores de Monterrey (Mexico)
- Politehnica University Timisoara (Romania)
- Fraunhofer Institute (Germany)
- RWTH Aachen University (Germany)
- University of Illinois (US)
- University of Glasgow (UK)
- University of Shanghai (China)



We contribute to important industry issues

We actively advocate for policies supporting the development of our industry, with a focus on issues related to innovation, energy efficiency, professional development and industry regulation. The organizations of which we are members include: [102-13](#)

- The Brazilian Electrical and Electronics Industry Association (ABINEE);
- The Brazilian Industrial Internet Association (ABII);
- The Brazilian Heating, Ventilation and Air Conditioning Association (ABRAVA);
- The Brazilian Association for Research & Development at Innovative Companies (ANPEI);
- The Santa Catarina State Industry Federation (FIESCO);
- The Slovakian Association for Human Resources Development;
- The Slovakian Association for Refrigeration and Air Conditioning;
- The American Chamber of Commerce in Slovakia;
- The US Association of Home Appliance Manufacturers (AHAM);

- Heating, Air-conditioning and Refrigeration Distributors International (HARDI);
- The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE);
- Centro Studi Galileo - Italy;
- The Russian Union of Refrigeration Industry Enterprises;
- The China Association of Home Appliance Manufacturers (CHEAA);
- The Mexican National Association of Refrigeration Industry Manufacturers (ANFIR);
- The Home Appliances Cluster of Nuevo Leon, Mexico (CLELAC);
- Market accelerator for natural refrigerants (SHECCO).



sustainable operations

We offer a continuous cycle of training, learning and transformation that drives continual improvement in plant productivity and safety

Sustainable operations: zero accident, zero defect, zero scrap, zero waste and zero loss



SUSTAINABLE OPERATIONS: at the workplace

We provide training to our employees and invest in education and development. Occupational safety management is top-of-mind at Embraco, as is operational management and efficient performance in energy, water, waste and effluents.

In 2013 we adopted World-Class Manufacturing (WCM) in our operations—a rigorous, integrated methodology designed to improve operational performance through engagement, motivation and people development. WCM is being implemented across Embraco plants through a continuous training, learning and transformation cycle that will ensure our compressors are produced to increasingly high standards of efficiency and by highly trained personnel.

Plants are rated on a scale of 0 to 100, with a bronze level representing the first major milestone on a journey towards the highest level of World-Class. Currently, our Brazil (Compressors), China (Compressors), Slovakia and Mexico plants have achieved bronze status, meaning we are progressing towards a level of excellence in our production lines that will place us among a select group of global, world-class manufacturers.

HOW THE METHODOLOGY WORKS

The goal of the methodology is to improve safety and productivity through a set of definitions, principles, policies and techniques that help to identify potential bottlenecks using the 'zeros' concept: zero accident, zero defect, zero scrap, zero waste and zero loss.

The methodology comprises 12 technical pillars and 10 managerial pillars. Safety, for example, is one of the technical pillars and entails training employees to identify and prevent potential risks. The managerial pillars are for purposes that include securing employee engagement at all levels of the organization, building the roadmap for WCM, allocating sufficient human and financial resources for implementation.



Advancing toward world-class production: bronze WCM certification achieved at four plants.



Improving our processes through simplification, creativity and increased effectiveness

In 1997, as part of an effort to improve operational excellence, Embraco launched a suggestion program called the 'Quality Control Circle' (QCC) in our Brazil operations. Through this program, operators organize themselves into groups to identify potential weaknesses or areas for improvement inside production processes.

In addition to factory-floor improvements, the Program encourages employees to use their creativity to find

opportunities across our broader operations – from procurement to press tooling change-outs.

In the last 22 years, the QCC program has implemented more than 140,000 suggestions, of which 30% have been implemented in the last 2 years. The significant increase in recent years has come as a direct result of the implementation of WCM concepts and tools in our day-to-day operations.

Employee participation in the QCC program

68%
in 2017

61%
in 2018

an average of
15 solutions
per participant

more than
48,000 projects
implemented in the last two years

CERTIFICATIONS

ISO 9001



Based on quality management principles, including a strong customer focus, the motivation and implication of top management, the process approach and continual improvement.



Compressors
Foundry
Components



Compressors
Electronics



Compressors



Compressors

OHSAS 18001



This standard addresses occupational health and safety management and provides a framework for identifying, mitigating and reducing risks at the workplace.



Compressors
Foundry
Components



Compressors
Electronics



Compressors

IECQ QC 080.000



This standard outlines procedures for electronics manufacturers in implementing management processes for hazardous substances.



Compressors
Foundry
Components



Compressors
Electronics



Compressors

ISO 14001



This standard addresses the implementation of environmental management systems to enhance environmental performance and fulfil compliance obligations.



Compressors
Foundry
Components



Compressors
Electronics



Compressors

IATF 16949



Together with ISO 9001, this standard establishes requirements for quality management systems, from the design and development through the production and, where applicable, the installation and servicing of automotive products.



Electronics

Excellence in people management 103 | 401

We develop and engage our employees within a culture of diversity. Our team is highly diverse in terms of employees' nationalities, generations, experience and training.

Embraco's approach to people management is designed to attract, develop and retain talents with a passion for delivering quality of life both within and outside the workplace, and is underpinned by the principles of respect, integrity, diversity, inclusion and a spirit of winning. The process is led by a global team with local support, including regular internal and external audits. [103 | 401](#)

Following our people strategy, we offer an inspiring and innovative environment and seek to provide the tools necessary for our talents to have an excellent work experience and achieve extraordinary results. We operate on the basis of three pillars:

- **Extraordinary performance** – A highly effective organization that consistently delivers results above expectations;
- **Great people** – Diverse talents prepared to be future leaders;

- **Winning culture** – Internally and externally recognized as a great place to work.

ATTRACTING AND RETAINING TALENT

Global talent acquisition team has a mission of recruiting people who are aligned with our leadership model. We offer career advancement opportunities first to our internal staff, while seeking out external candidates on a need-only basis. [202-2](#)

During the previous two years we intensified programs such as succession, which recognizes internal staff performance through promotions.

In talent acquisition processes, we foster continual communication with candidates, dealing with them in a respectful and transparent way.

Onboarding training begins during the selection process, giving selected candidates the opportunity to learn about our business and challenges.

Proportion of senior management hired from the local community (%) 202-2

Business Unit	2016	2017	2018
Brazil (Compressors)	86	98	99
Brazil (Foundry)	-	-	-
Brazil (Components)	-	-	100
China (Compressors)	100	91	92
China (Electronics)	100	100	100
Italy	100	90	83
Mexico	100	50	56
Slovakia	100	75	75
United States	75	40	25
Russia	100	100	100

Note 1: Our strategy is implemented at the senior management level.

Embraco's positive relations with communities are reflected in our ability to source talents locally. Combined with the recognition of employee performance, this scenario is also valid in leadership positions.



LEADERSHIP MODEL AND PROFESSIONAL DEVELOPMENT

Embraco's leadership model sets out the behaviors and attitudes expected of employees based on our values. At Embraco we are all considered leaders – of the business, of a function, of a team or of ourselves – being expected to act as owners of our own careers and development.

We support the professional growth of our talents using Career Compass, a tool for developing, discussing and documenting career plans while outlining the next steps and experience needed for an employee's development.

W Career

We develop and retain talents using the *W Career* methodology, which accommodates employees' different ambitions and skills. The model provides three possible pathways: administrative, technical or project leadership. Embraco gives employees the opportunity to identify and select their preferred pathway.

Succession

Each employee's potential for growth in either the administrative, technical or project leadership pathway is assessed by a Succession Committee that uses the

leadership model as a basic guideline. To further enhance diversity throughout the business, our leaders are assigned targets for performance, gender representation and nationality.

Engagement

Embraco periodically conducts a global survey to assess the level of engagement among salaried and hourly employees, supporting an inclusive and motivating workplace environment. The survey is confidential and the information is used as an input in designing action plans for improvement. The survey addresses the following topics:

- Employee perceptions of leaders;
- Strengths;
- Opportunities for improvement.

In 2017, 86% of Embraco employees responded to the survey and the overall engagement rating was 76%. Based on the inputs from the survey, a number of initiatives were implemented throughout 2018 by both local teams and our Mindset and Culture Committee, which meets on a weekly basis to discuss and implement initiatives that improves employee engagement.

As a testament that the survey and the resulting initiatives have been effective, for ten consecutive years Embraco has been ranked as one of the 150 Best Companies to Work for in Brazil by *Guia Você S/A*, which recognizes the top companies for human resources and management practices.

We believe employees should be free to shape their own careers and this is the underlying assumption in the tools and pathways we offer for the development.



Think Tank: employee development with purpose and aligned with our leadership model

Our Think Tank program in Joinville (SC), run by Associação Projeto Resgate, develops innovative and transformational leaders through a combination of theoretical training on innovation methods (e.g. Design Thinking, Theory U and Design for Change) and hands-on experience of leading groups in developing solutions to real-world problems in communities.

Since 2017, this program has helped to enhance the development of our future leaders.

Home Office

Our home office policy was implemented in response to a natural market demand reflecting employees' search for a better work-life balance. We launched a pilot in Brazil in 2018, with approximately 50% of eligible employees joining the program. In 2019 we plan to roll out the initiative at our business units in Slovakia, US, Italy and Mexico.

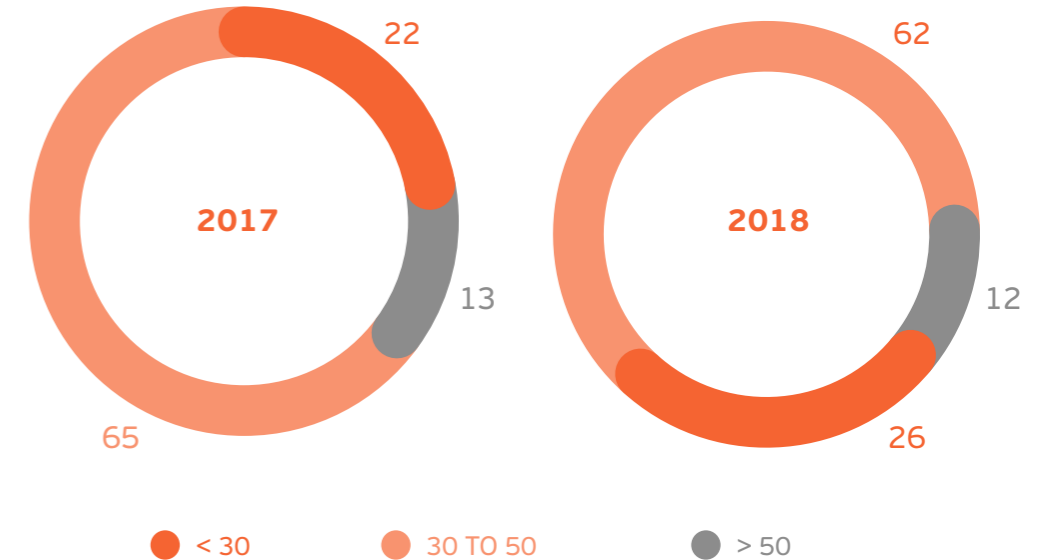
EMPLOYEE PROFILES 102-8

As a company with a global presence in different markets, employee profile varies with the economic, cultural, labor and other regional factors surrounding our different operations.







Our headcount in Italy was recently reduced after the local plant was reindustrialized and our manufacturing operation was discontinued (read more on page 12).

Our headcount data is based on the number of employees working at the Company as of December 31. The workforce figures include any employees on medical, maternity or unpaid leave, but exclude trainees, apprentices, interns and outsourced workers.







WORKFORCE BY AGE GROUPS (%) 102-8



Workforce by employee category 102-8	2016		2017		2018	
	Male	Female	Male	Female	Male	Female
CEO and Vice Presidents	8	1	8	1	6	1
Directors	22	1	23	1	23	1
Senior Managers	73	13	68	11	61	13
Leaders	150	58	308	76	282	76
Management	1,297	555	1,033	489	968	456
Operational	6,204	2,458	5,934	2,561	5,734	2,356
Other	82	44	0	0	0	0
TOTAL	7,836	3,130	7,374	3,139	7,074	2,899

Workforce by gender and region 102-8	2016			2017			2018		
			TOTAL			TOTAL			TOTAL
Brazil (Compressors)				3,044	807	3,851	3,204	853	4,057
Brazil (Foundry)	3,858	1,221	5,079	242	11	253	257	16	273
Brazil (Components)				204	236	440	205	223	428
China (Compressors)	1,155	313	1,468	1,039	273	1,312	969	252	1,221
China (Electronics)	50	178	228	64	169	233	55	188	243
Italy	383	169	552	376	163	539	28	10	38
Mexico	828	435	1,263	880	668	1,548	808	541	1,349
Slovakia	1,535	791	2,326	1,492	784	2,276	1,517	793	2,310
United States	23	17	40	27	16	43	28	17	45
Russia	4	6	10	6	12	18	3	6	9
TOTAL	7,836	3,130	10,966	7,374	3,139	10,513	7,074	2,899	9,973

Note: workforce figures by business unit in Brazil were not available in 2016.

Workforce by employment type 102-8	2016		2017		2018	
						
Full time	7,452	3,034	7,371	3,136	7,070	2,897
Part time	384	96	3	3	4	2
TOTAL	7,836	3,130	7,374	3,139	7,074	2,899

Employees covered by col- lective bargaining agree- ments (%) 102-41	2016	2017	2018
Brazil (Compressors)	100	100	100
Brazil (Foundry)	100	100	100
Brazil (Components)	100	100	100
China (Compressors)	95	95.4	99.4
China (Electronics)	N/A	N/A	N/A
Italy	100	100	100
Mexico	71	72	73
Slovakia	100	100	100
United States	N/A	N/A	N/A
Russia	N/A	N/A	N/A

Note: In China, collective bargaining agreements are non-mandatory and the figures for the Compressors unit exclude retired employees and interns. Our China Electronics factory uses individual rather than collective agreements. In Mexico, only operational employees are covered by collective bargaining agreements. In the US and Russia, collective bargaining agreements are not required by local regulations.

New hires by age group 401-1	2016	2017	2018
	No.	No.	No.
< 30	1,063	960	1,348
30 to 50	794	808	901
> 50	32	53	53
TOTAL	1,889	1,821	2,302
By gender	No.	No.	No.
Men	1,345	1,000	1,278
Women	551	821	1,024
TOTAL	1,889	1,821	2,302
TOTAL RATE	18%	17%	23%

Employee turnover, by age group 401-1	2016	2017	2018
	No.	No.	No.
< 30	1,031	886	991
30 to 50	880	1,041	1,498
> 50	142	228	425
TOTAL	2,053	2,155	2,914
By gender	No.	No.	No.
Men	1,248	1,446	1,855
Women	805	709	1,059
TOTAL	2,053	2,155	2,914
TOTAL RATE	19%	20%	29%

Note: The changes in employee hire and turnover rates from one year to another reflect the typically higher turnover rates in Mexico and the repurposing of our plant in Italy (read more on page 12).

Compensation 103 | 202

At Embraco we seek to reward our talents for their efforts so they continue to deliver extraordinary results. Our rewards and compensation policy uses merit-based criteria to recompense performance.

Profit sharing program

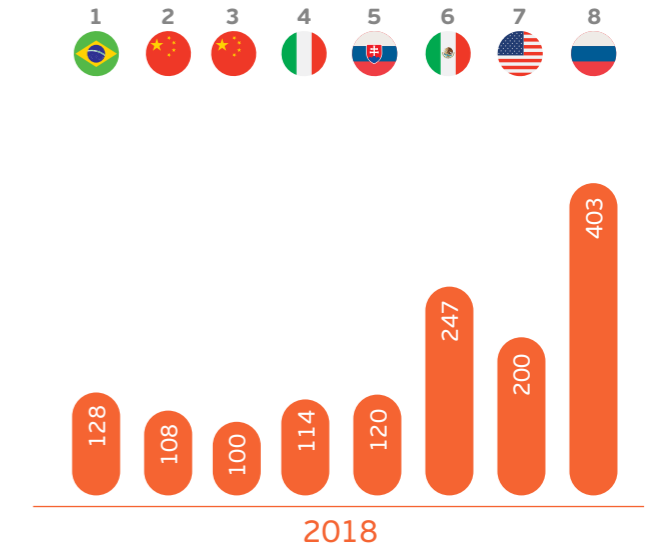
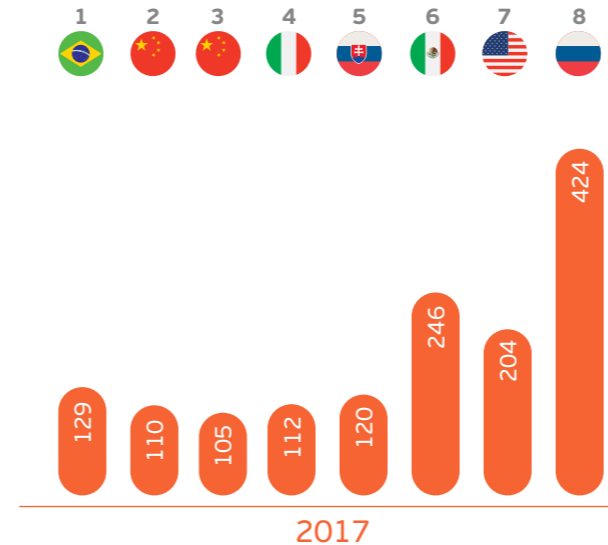
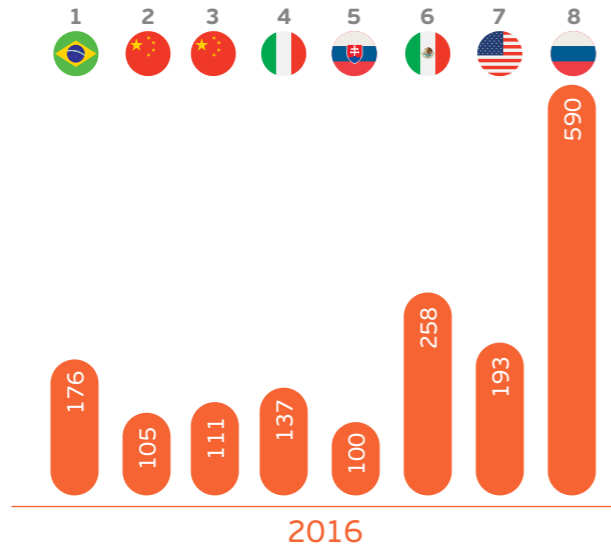
Supplementing our employees' fixed compensation, Embraco has a profit-sharing program that encourages employees to demonstrate teamwork and a spirit of winning. In addition to overall corporate targets, each country has its local ones.

RATIOS OF STANDARD ENTRY LEVEL WAGE COMPARED TO LOCAL MINIMUM WAGE (%)

202-1

BUSINESS UNITS

1. Brazil
2. China (Compressors)
3. China (Electronics)
4. Italy
5. Slovakia
6. Mexico
7. United States
8. Russia



Note: The percentage figures are for both men and women.

Note 2: Employees in Russia work in administrative positions only. This explains the higher percentage compared with other countries.

Our retirement and benefits plans 201-3

In Brazil, employees contribute 1% of their nominal compensation, up to a limit of R\$ 7,780.00, and can elect to contribute 5.5% of the amount by which that limit is exceeded, with Embraco's matched contributions amounting to 50% to 200% of employee contributions depending on age.

In the US, retirement plan contributions begin in the third month of employment. Employees can elect to contribute 6% of their compensation, which is then matched by the Company.

In Italy, employees can voluntarily join the program under applicable collective bargaining agreements. Contribution percentages are 1.4% for employees and 4% for managers, and are matched by the Company.

All Embraco plants have venues for continuous training as part of the WCM methodology.

How we manage training and development 103 | 404

Our training and development strategy addresses both general and operation-specific training needs using the EEE (Experience, Exposure and Education) methodology. With support from corporate and local talent management teams, each area can independently invest in training courses and initiatives suited to its business needs and challenges. Organizational competencies are addressed by global training initiatives.

In 2018, we diversified our training offering by incorporating online distance learning assets with support from internal facilitators trained to teach others the skills they have learned. The WCM methodology's People Development pillar is central to providing an environment for continuous learning.



Frontline Leaders

Our workforce largely consists of plant operators who are managed by supervisors. Because they play a key role in the day-to-day management of the factory floor, supervisors receive special training to develop and enhance their technical skills and leadership competencies. This global program is known as the Frontline Leaders

Average hours of training by employee category and by gender 404-1	2016		2017		2018	
	Male	Female	Male	Female	Male	Female
Executive (CEO, Vice Presidents, Directors, Senior Managers)	21.3	19.6	8.7	14.7	6.1	19.1
Leaders	22.2	24.7	4.6	7.5	8.3	14.3
Administrative, Operational and Other	23.3	14.3	19.0	10.7	9.6	9.8
TOTAL	23.3	14.6	18.3	10.7	9.5	10.0

PROGRAMS FOR UPGRADING EMPLOYEE SKILLS AND TRANSITION ASSISTANCE PROGRAMS 404-2

Program	Type of initiative	Audience
Frontline Leaders	Leadership skills building	Supervisors
Leadership Academy	Leadership skills building	Managers, senior managers and directors
Compliance Training	Online courses on regulations and our code of conduct	All employees
Education Grants (Brazil)	Education grants for external training or education programs	Operational and technical-pathway employees

Note 1: We offer a variety of training opportunities to employees, but none are specifically focused on preparing them for retirement.

Note 2: Administrative employees receive assistance in jobseeking where they are terminated as a result of reorganizations (including both leadership- and analyst-level employees).

Our education policy extends beyond the classroom experience. We disseminate knowledge through initiatives such as:



Executive coaching



International secondment



Job rotation and job shadowing



Mentoring

Embraco Journey

We track the experience our employees acquire with the Company through Embraco Journey: an online monitoring and development platform comprising three annual stages:

Align and Commit

Targets are set for the year based on our corporate strategy and priorities.

Develop and Deliver

Delivery to date is assessed and reviewed and any needed adjustments of course are made.

Confirm and Reward

Delivery at year end is assessed to inform each employee's variable compensation.



In the performance assessment step, we use the EP&R (Extraordinary Performance & Results) methodology to share feedback with employees as a way of supporting their professional development.

Employees receiving regular performance reviews (%) 404-3	2016			2017			2018		
	Person icon	Person icon	TOTAL	Person icon	Person icon	TOTAL	Person icon	Person icon	TOTAL
TOTAL	19.78	20.06	19.86	19.53	18.41	19.20	18.94	18.87	18.92

Note: We assess 100% of salaried employees (CEO, Vice Presidents, Directors, Senior Managers, Leaders and Administrative Employees).

Health and safety 103 | 403

Our employees' health and safety is a priority. In addition to local weekly alignment meetings attended by managers and employees at each plant, Occupational Health & Safety is also addressed in monthly, global leadership meetings attended by the CEO, vice presidents, directors and senior managers at all business units.

A continual improvement process is in place as part of our operations management, and we also address health and safety by applying WCM principles and international certification standards. Using appropriate methodology, we assess conditions at each workstation and work with employees to develop action plans to eliminate or mitigate potential risks.

ZERO ACCIDENT OR OCCUPATIONAL ILLNESSES

Embraco organizes regular engagement initiatives as part of safety culture, which include:

Sharing Best Practices

through a co-creation network and collective intelligence in processes

Daily safety discussions

a safety culture that enables space for daily discussion on the subject;

Safety Kaizens

new ideas and suggestions from employees to improve operational practices and processes. Between 2017 and 2018 we received approximately 50,000 suggestions;

Safety Management Audit Training (SMAT)

a tool for creating a safe workplace by observing employee behavior;

Autonomous Safety Group

we bring together influential employees to lead the processes that are part of our safety routine, specific activities (inspections and audits), and support the building of the safety learning culture in our operations.



Our employees are taught the Safety Golden Rules, which:

- Help to foster safe behavior and provide specific pointers related to routine activities;
- Emphasize the primary aspects and risks related to our business model and operations;
- Stress the importance of disseminating safety guidelines and recommendations to employees, suppliers and visitors at all plants.

Employee health is also among our priorities and is addressed by programs covering both occupational health and healthcare.

Our primary objective is to provide employees with the care they need to perform their activities and provide a healthier workplace environment. Embraco has programs in place covering ergonomics, healthy nutrition, hearing and respiratory protection, as well as blood pressure and occupational health manage-

ment programs including periodic health checkups, workplace exercise activities and programs to encourage fitness exercise.

Our management process is under constant improvement. The table below shows recent trends in key performance indicators.

Health & Safety Rates 403-2	2016	2017	2018
Injury Rate	2.57	2.28	2.32
Occupational Disease Rate	0.11	0.04	0.09
Days Lost Rate	7.19	3.71	6.12

Absenteeism rate by business unit 403-2	2016	2017	2018
Brazil (Compressors)	2.60	2.79	2.83
Brazil (Foundry)	3.14	2.94	3.18
Brazil (Components)	2.04	1.76	1.61
China (Compressors)	0.70	1.62	1.57
China (Electronics)	0.73	0.50	0.71
Italy	2.67	-	-
Mexico	2.23	2.69	2.40
Slovakia	2.67	3.01	3.30
United States	0	0	0
Russia	-	-	-

Note: Reason for calculating absenteeism on a local basis: Currently absenteeism data is tracked, calculated and managed separately for each plant, as health and safety definitions vary depending on local legislation and culture.

Health and safety topics covered in formal agreements with trade unions 403-4

Activities at all plants are conducted in compliance with applicable regulations, contractual requirements and others under labor agreements, not only regulations related to health and safety. Regulatory developments are monitored continuously and systematically with support from specialist firms. As part of our efforts to protect employee health and safety, we continually stress the importance of wearing appropriate personal protective equipment while providing appropriate training on prevention and joining local meetings with trade unions.



Safety Committees 403-1

Each Embraco plant has its own formal health and safety committee. Globally, 252 employees are members of it representing 100% of our manufacturing teams.

Considering Embraco's total number of employees, 99.5% of the workforce is represented by the safety committees. Because these committees are not mandatory for administrative offices, our teams in Italy and Russia (where we have offices only) are not covered.

Environmental efficiency

103 | 302 103 | 303 103 | 305 103 | 306

Operational management, natural resource efficiency and minimizing waste and effluents are integral to our commitment to continually reducing the environmental impact from our products and processes, preventing pollution and protecting the environment.

This commitment is further reflected in our Global Policy, Environment and Energy Golden Rules, ISO 14001 certification and our adoption of WCM methodology, by which we aim to achieve global excellence in operations through continual process improvement and simplification.

Process audits

Initiatives such as training, identification of process improvement opportunities and targeted audits are implemented as a way to increase employee engage-

ment and ownership of our environmental and energy performance. Leaders are engaged in weekly audits to measure the results of these initiatives. We also perform internal and external audits to ISO 14001, and provide Environmental Management Audit Training (EMAT) to employees at different levels to equip them to address behavioral and environmental aspects and assist in implementing measures within the day-to-day operations to mitigate adverse environmental impacts.

The findings from these audits are reviewed by cross-disciplinary teams who then develop action plans to address identified gaps.

Energy

103 | 302

Our entire approach to energy management is centered around the WCM methodology. Based on the level of consumption for different sources, we prioritize consumers and implement pilot projects to first gain a detailed understanding of consumption dynamics and potential efficiencies. The data collected from these pilots informs solutions and strategies for maximizing energy efficiencies in our processes.

Other energy management methods used in our global operations include online consumption monitoring, losses evaluation and targeted audits to ensure resources are being utilized effectively.

Our energy management practices include:

- Selecting energy models (based on energy consumption vectors);
- Online measurement;
- Energy losses evaluation and energy efficiency projects.

Embraco's energy management projects generated electric energy savings of 13% from 2016 to 2018, equivalent to one month's supply for a city with a population of approximately 300,000. Initiatives in the period included:

- Automation retrofits (HVAC, cooling towers, etc.);
- Replacing equipment with more efficient models (pressure, compressed air, consumption, etc.);

- Solar pilot project;
- LED lighting retrofits and sensor installation.

Energy consumption (gigajoules) was reduced by 10.5% from 2017 to 2018, and by 4.5% from 2016 to 2017. Embraco's Energy Intensity Rate (GJ per compressor produced) fell by 5.5% from 2017 to 2018 and by 7.4% from 2016 to 2017. [302-4](#)

ENERGY CONSUMPTION WITHIN THE ORGANIZATION [302-1](#)

Fuel combustion (GJ)	2016	2017	2018
Electric Power	941,442	900,353	814,490
Natural Gas	543,781	512,685	456,710
Liquefied Petroleum Gas (LPG)	8,400	12,970	5,690
Diesel	2,412	2,329	2,219
Gasoline (petrol)	904	1,071	761
TOTAL	1,496,940	1,429,406	1,279,872

Emissions [305-1](#) [305-2](#) [305-3](#)

Our primary strategy for reducing greenhouse gas (GHG) emissions is reducing electricity consumption. In 2018 we successfully reduced our emissions per compressor produced by 10% across our global operations, compared to a 2017 baseline. This was partly driven by a reduction in: electricity consumption, the emission factor for power generation in Brazil, and

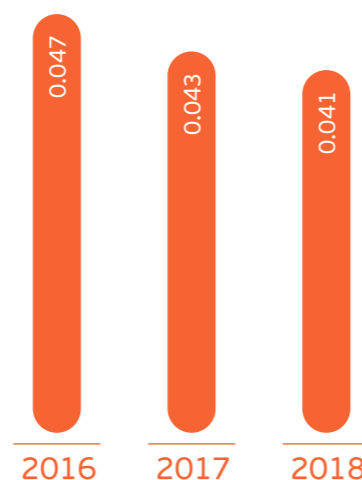
the emissions reduction as a result of our operations in Italy being discontinued.

We use the Brazilian GHG Protocol platform for standardization purposes, and adjust the power generation emission factors for each country accordingly.

Direct and indirect greenhouse gas emissions – (t CO ₂ eq)	Scope 1	Scope 2	Total	Index (kg CO ₂ eq/Compressor)
2016	38,799	57,141	95,940	2.92
2017	38,849	56,406	95,255	2.90
2018	31,087	49,314	80,401	2.58

ENERGY INTENSITY [302-3](#)

(GJ per compressor produced)



Projects implemented from 2016 to 2018 generated electric energy savings of 13%.

Water 103 | 303

Water management at Embraco is also based on WCM methodology, in which critical processes are prioritized and assessed to gain a detailed understanding of the factors involved in consumption.

Efficient water consumption is regularly addressed at all levels of the organization, and we have programs in place to monitor consumption per building on a daily basis. Another program covering operators monitors the timing of operation of critical machinery and equipment. This allows operators to identify and quickly respond to any overconsumption.

From detailed data it has been possible to adopt measures and projects of maximum efficiency in consumption, such as: reuse of rainwater, reuse of water in processes or for sanitary purposes, replacement for more efficient equipment among others.

These programs and our water management strategy generated savings of 17% from 2016 to 2018, or the equivalent of 110 million liters (one month's water supply for a city with a population of approximately 35,000).

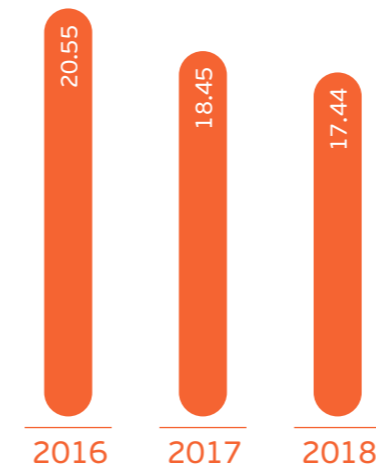


WATER CONSUMPTION (M³) 303-1 | 303-3

Water withdrawal by source (m ³) 303-1 303-3	2016	2017	2018
Groundwater	220,647	178,201	155,139
Municipal or utility water	434,022	428,446	387,867
TOTAL	654,669	606,647	543,006

CONSUMPTION RATE

(Liters per compressor produced)



Percentage and total volume of water recycled and reused	2016	2017	2018
Water recycled (m ³)	243,958	221,815	191,831
Percent reused (%)	27	27	26

Effluents and waste 103 | 306

Waste management at Embraco is based on WCM methodology, with a focus on the 5 Rs approach (Refuse, Reduce, Reuse, Recycle and Recover).

In addition to the controls, programs and projects in place in our operations, all third-party waste management companies undergo a stringent certification process in which they are screened against legal, documentation and licensing requirements. We also conduct desktop and on-site audits that must be approved prior to these companies initiating their activities.

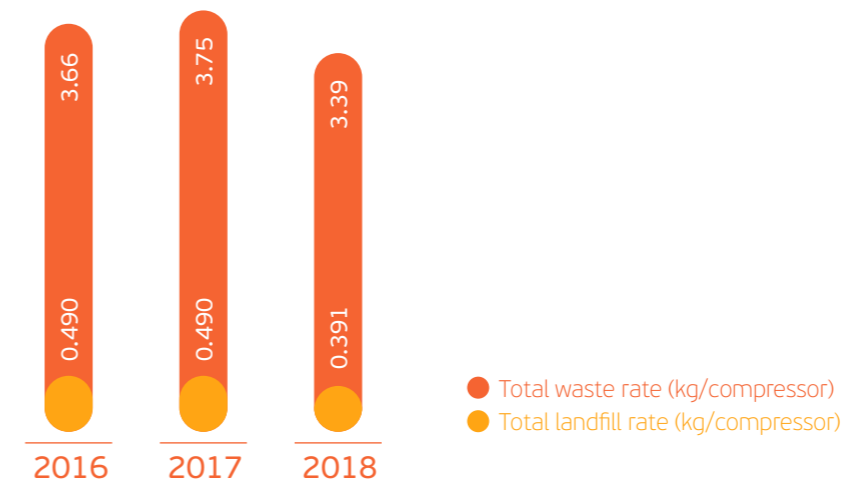
Effluent management follows strict processes that ensure disposal in accordance with local legislation, with daily and monthly monitoring for quality control. If any variables exceed established limits, an action plan is developed immediately to correct the problem. Whenever necessary, monitoring reports are submitted to the appropriate environmental authorities.



WASTE BY TYPE AND DISPOSAL METHOD (metric tons) 306-2

Type of waste Method of disposal	Nonhazardous waste			Hazardous waste			Total
	Landfilling	Recycling	Incineration or recovery	Landfilling	Recycling	Incineration or recovery	
2016	15,330.59	97,350.81	575.95	297.53	2,937.47	186.02	116,678.37
2017	15,888.34	103,211.00	729.10	183.20	2,371.57	1,012.99	123,395.73
2018	11,955.81	89,458.77	861.20	228.09	2,086.12	864.07	105,454.07

(RATES PER COMPRESSOR PRODUCED)



sustainable partnerships

Co-creation is among the approaches we use to deliver positive impact throughout the value chain

Sustainable partnerships



SUSTAINABLE PARTNERSHIPS: Collaboration and co-creation in the value chain

Our operations and approach to doing business are designed to generate positive impact on the communities where we operate and on different stakeholders. As part of this, we invest in quality and customer satisfaction by promoting best sustainability practices in the supply chain, supporting the communities where we operate through social programs and volunteer work.

Our customers

The innovative solutions are designed to deliver value and positive impact for our customers and to provide a better service experience. (read more about our products and services on page 20).

We want to be recognized as preferred partner of our customers. To achieve this, we work closely with them to understand their challenges and needs to then support on the development of strategies and processes that deliver improvements in quality, competitiveness and efficiency.

Quality endorsement

Throughout more than five decades of operation, we have built a strong brand that is recognized as a market leader for efficiency, quality and innovation. We also do some partnerships in co-branding, endorsing brands and products of customers who use our compressors, attesting the quality of their attributes to end consumers.

Customer Complaint Management System

We implemented a new global system for addressing customer complaints at all manufacturing plants. Complaints can now be submitted either by the quality team or directly by customers.

Customer satisfaction

Listening to customers is essential in ensuring we are increasingly responsive to their needs. Embraco has carried out customer satisfaction surveys since 2012 to measure the level of customer satisfaction with our brand and the primary factors driving their purchasing decisions.

Perceived quality

Embraco uses Quality Ratings to closely monitor customer perceptions on quality. Compared with a target of 90% for 2017 and 2018, we achieved a Quality Rating of respectively **91% and 94%**.

Survey results 2017



226
customers



56
countries



Best-rated
dimension:
product
performance



Good ratings on quality,
servicing, supplier
responsiveness and
technical support

We inspire our suppliers to enhance the positive impact from their operations [103 | 414](#)

Embraco engages the supply chain in implementing practices that help them generate positive impacts—social, environmental and economic—and effectively manage and mitigate risks.

Each year we mark Supplier Day with a global event that brings together our key suppliers and business partners. In the previous two years, 405 suppliers attended events in Brazil and China to celebrate our achievements and renew their commitment to doing business and managing operations in accordance with Embraco’s principles and values.

SUPPLIER SOCIAL AND ENVIRONMENTAL ASSESSMENTS [103 | 308](#)

The Embraco Code of Conduct guides the relation and management of suppliers. The guidelines and principles contained in it address applicable regulations and standards on social responsibility, environment and compliance.

To ensure respect for human dignity in all activities, help to prevent and combat child, slave and forced labor, these issues are addressed in our General Terms and Conditions, which suppliers are required to formally accept as part of the onboarding process. [103 | 408](#) [103 | 409](#)

In 2018, as in the previous two years, we identified no suppliers causing significant adverse impacts on the environment. [308-2](#)

No suppliers were identified as being at significant risk for incidents of child, forced or compulsory labor. [408-1](#) [409-1](#)

Supplier management and relations are the responsibility of our Procurement department, which uses different methods depending on product quality, logistics requirements, type of relationship and supply risks. The assessment process also screens suppliers against environmental aspects, and includes the procedures described below.

Hazardous Substance Assessment

A self declaration in which suppliers declare whether they use hazardous substances classified into four groups, as follows:

- RoHS substances;
- Substances of very high concern (SVHC-REACH);
- Forbidden hazardous substances;
- Hazardous substances treated as exceptions.

POTENTIAL SUPPLIER ASSESSMENT 2018 [102-9](#)

Operation	New suppliers	Suppliers with potential assessments
Brazil	8	5
China (Compressors)	0	0
China (Electronics)	7	7
Mexico	5	2
Slovakia	3	3
TOTAL	23	17

100% of suppliers onboarded in 2018, 2017 and 2016 were screened against the social and environmental criteria detailed in our Code of Conduct. [308-1](#) [414-1](#) [414-2](#)



Potential supplier assessments 408-1 409-1

Our suppliers perform a self assessment known internally as a Potential Supplier Assessment. In this process, suppliers are required to confirm whether they meet Embraco's requirements on quality, competitiveness, reliability, sustainability and organizational practices. The assessment results in a score, and where suppliers fail to meet the minimum threshold, an improvement action plan can be implemented.

Supplier Audit Process

103-408 | 103-409

Supplier audits are conducted to verify the accuracy of information contained in Potential Supplier Assessments. Every year we audit those with quality issues during the previous year plus some of the most strategic ones. 308-1 102-9

Developing a diversified supplier base

Our global presence and operations require us to develop a highly diversified supplier base. Our Procurement team has developed a portfolio combining local suppliers and suppliers with global delivery capabilities.

In 2018 our supplier base included 481 suppliers of materials used in the production of compressor parts,

including electrical materials, metals, polymers, and other materials. 102-9

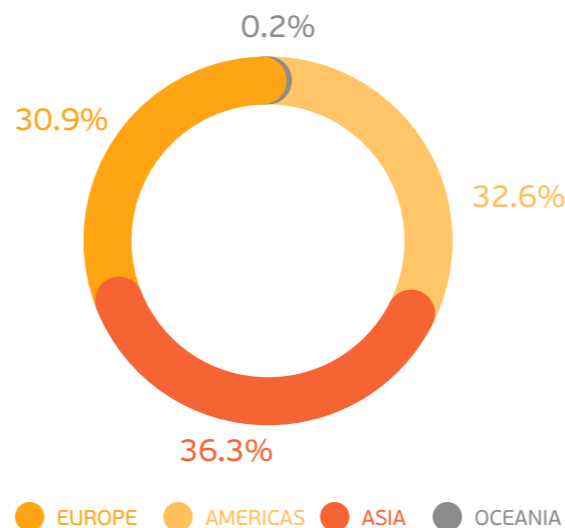
Monitoring the metal supply chain 408-1 409-1

Our suppliers are assessed on whether they use conflict minerals or minerals mined in countries where revenues from its sale are used to finance illegal activities, violence or human rights violations. We have access to a blacklist of suppliers¹ selling conflict minerals; Embraco suppliers are forbidden from sourcing products from any blacklisted suppliers.

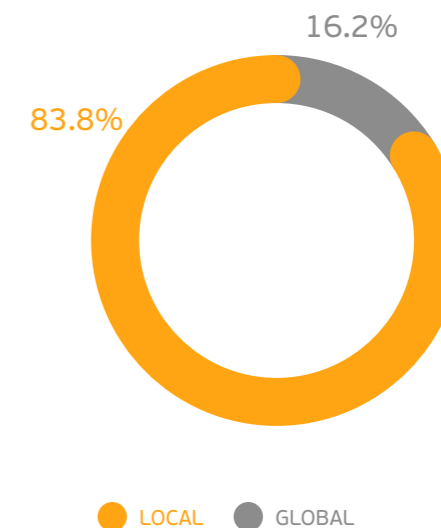
1. The blacklist is prepared by a non-government organization and is available at: <http://www.responsiblemineralsinitiative.org/>

SUPPLIER LOCATION 102-9

Geographic distribution by continent



GLOBAL DISTRIBUTION OF SUPPLIERS BY TYPE, LOCAL OR GLOBAL 102-9



* Local: delivers to a single Embraco plant.
* Global: delivers to two or more Embraco plants.

Supporting development is important for Embraco

We believe our business model, brand and operations are platforms from which we can generate impact and create positive value for the communities where we operate. We engage and encourage our employees to participate in volunteer work within surrounding communities.



US
Community work
Donations



Volunteer work at a women's shelter
Volunteer work in support of a shelter for victims of domestic violence.



MEXICO
Community work
Donations



"Adopt a child" campaign
An event in which employees do volunteer work and donate gifts for children in needy communities.



BRAZIL
Social programs
Donations



Plogging
Voluntary cleanup activities that engage participants in exercise while raising awareness about proper waste disposal.



SLOVAKIA
Community work
Donations
Social programs



iNOVEum
Lectures, courses and workshops for secondary education students to help them transform ideas into viable businesses.

Donations to families in crisis situations
Collective cleanup hikes that help to raise awareness about the importance of volunteer work and environmental preservation.



CHINA
Community work
Social programs



Education for migrant children
Volunteers communicate with students through monthly letters and six-monthly in-person meetings.

Environmental protection
Collective cleanup hikes that help to raise awareness about the importance of volunteer work and environmental preservation.

We support environmental education through the Embraco Ecology Award

This Program places environmental education at the center of discussions both within and outside the classroom, encouraging and recognizing social and environmental practices at public schools in Joinville.

The award helps to expand the depth and breadth of knowledge about methods of implementing sustainable policy in public schools. It equips students to act as stewards and transformation agents at their schools, in their families, neighborhood and cities.



The Embraco Ecology Award has been recognized as a good practice by the Global Compact:



25
editions
to date



800+
projects
entered



100+
selected and
implemented



100,000+
people
benefited

Supporting sports and recreation

Embraco offer residents in Joinville (SC), our employees and their dependents a large facility for sports and recreation. The Embraco Sports Association (ADE) features an athletics track, park, restaurant and pavilions for events, as well as services such as a fitness center and gymnastics, volleyball, soccer, basketball, yoga and dance lessons.



GRI Content Index 102-55

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
GENERAL DISCLOSURES				
ORGANIZATIONAL PROFILE				
GRI 102: General disclosures 2016	102-1 Name of the organization	10		
	102-2 Activities, brands, products, and services	18, 19		
	102-3 Location of headquarters	11, 12		
	102-4 Location of operations	11, 12		
	102-5 Ownership and legal form	12		
	102-6 Markets served	11		
	102-7 Scale of the organization	11, 12		
	102-8 Information on employees and other workers	30, 31		8
	102-9 Supply chain	44, 45		
	102-10 Significant changes to the organization and its supply chain	None		
	102-11 Precautionary principle or approach	13		
	102-12 External initiatives	6		
	102-13 Membership of associations	23		

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
STRATEGY				
GRI 102: General disclosures 2016	102-14 Statement from senior decision-maker	3		
ETHICS AND INTEGRITY				
GRI 102: General disclosures 2016	102-16 Values, principles, standards, and norms of behavior	11		16
GOVERNANCE				
GRI 102: General disclosures 2016	102-18 Governance structure	13		
STAKEHOLDER ENGAGEMENT				
GRI 102: General disclosures 2016	102-40 List of stakeholder groups	6		
	102-41 Collective bargaining agreements	31		8
	102-42 Identifying and selecting stakeholders	6		
	102-43 Approach to stakeholder engagement	43		
	102-44 Key topics and concerns raised	6, 7		

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
REPORTING PRACTICES				
GRI 102: General disclosures 2016	102-45 Entities included in the consolidated financial statements	5		
	102-46 Defining report content and topic Boundaries	6		
	102-47 List of material topics	6		
	102-48 Restatements of information	5		
	102-49 Changes in reporting	5		
	102-50 Reporting period	50		
	102-51 Date of most recent report	51		
	102-52 Reporting cycle	5		
	102-53 Contact point for questions regarding the report	53		
	102-54 Claims of reporting in accordance with the GRI Standards	5		
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GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
MATERIAL TOPICS				
ECONOMIC PERFORMANCE				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	6		
	103-2 The management approach and its components	14		1, 5, 8, 16
	103-3 Evaluation of the management approach	5		
GRI 201: Economic performance 2016	201-3 Defined benefit plan obligations and other retirement plans	33		
MARKET PRESENCE				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	6		
	103-2 The management approach and its components	14		
	103-3 Evaluation of the management approach	32		
GRI 202: Market Presence 2016	202-1 Ratio of standard entry level wage compared to local minimum wage	32		1, 5, 8
	202-2 Proportion of senior management hired from the local community	27, 28		8

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
ENERGY				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	6		
	103-2 The management approach and its components	14		
	103-3 Evaluation of the management approach	38		
GRI 302: Energy 2016	302-1 Energy consumption within the organization	39		7, 8, 12, 13
	302-3 Energy intensity	39		7, 8, 12, 13
	302-4 Reduction of energy consumption	39		7, 8, 12, 13
	302-5 Reductions in energy requirements of products and services		Our products and solutions are designed to provide enhanced energy efficiency (see the chapter on sustainable solutions). This indicator is being assessed internally and will be reported for the following reporting period.	7, 8, 12, 13

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
WATER				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	6		
	103-2 The management approach and its components	14		
	103-3 Evaluation of the management approach	38, 40		
GRI 303: Water 2016	303-1 Water withdrawal by source	40		6, 7
	303-3 Percentage and total volume of water recycled and reused	40		6, 8, 12
EMISSIONS				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	6		
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	103-3 Evaluation of the management approach	38		
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	39		3, 12, 13, 14, 15
	305-2 Indirect (Scope 2) GHG emissions	39		3, 12, 13, 14, 15
	305-5 Reduction of GHG emissions	39		13, 14, 15

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
EFFLUENTS AND WASTE				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	6		
	103-2 The management approach and its components	14		
	103-3 Evaluation of the management approach	39, 41		
GRI 306: Effluents and waste 2016	306-2 Waste by type and disposal method	41		3, 6, 12
	306-3 Significant spills	None		3, 6, 12, 14, 15
SUPPLIER ENVIRONMENTAL ASSESSMENT				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	6		
	103-2 The management approach and its components	14		
	103-3 Evaluation of the management approach	44		
GRI 308: Supplier	308-1 New suppliers that were screened using environmental criteria	All newly on-boarded suppliers in 2017 and 2018 were screened against environmental criteria		
	308-2 Negative environmental impacts in the supply chain and actions taken	44		

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
EMPLOYMENT				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	6		
	103-2 The management approach and its components	14		
	103-3 Evaluation of the management approach	27		
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	32		5, 8
OCCUPATIONAL HEALTH AND SAFETY				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	6		
	103-2 The management approach and its components	14		
	103-3 Evaluation of the management approach	35		
GRI 403: Occupational health and safety 2016	403-1 Workers representation in formal joint management-worker health and safety committees	37		8
	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	37		3, 8
	403-4 Health and safety topics covered in formal agreements with trade unions	37		8

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
TRAINING AND EDUCATION				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	6		
	103-2 The management approach and its components	14		
	103-3 Evaluation of the management approach	33		
GRI 404: Training and education 2016	404-1 Average hours of training per year per employee	34		4, 5, 8
	404-2 Programs for upgrading employee skills and transition assistance programs	34		8
	404-3 Percentage of employees receiving regular performance and career development reviews	35		5, 8
CHILD LABOR				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	6		
	103-2 The management approach and its components	14		
	103-3 Evaluation of the management approach	44		
GRI 408: Child labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	44, 45		8, 16

GRI Standard	Disclosure	Page/URL	Omission	Sustainable Development Goals
FORCED OR COMPULSORY LABOR				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	6		
	103-2 The management approach and its components	14		
	103-3 Evaluation of the management approach	44		
GRI 409: Forced or compulsory labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	44, 45		8
SUPPLIER SOCIAL ASSESSMENT				
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	6		
	103-2 The management approach and its components	14		
	103-3 Evaluation of the management approach	44		
GRI 414: Supplier social assessment 2016	414-1 New suppliers that were screened using social criteria	44		
	414-2 Negative social impacts in the supply chain and actions taken	44		5, 8, 16

General coordination

Embraco—Corporate Communications & Sustainability

Reporting, editing, graphic design, project management and GRI consulting

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The Embraco logo is centered at the bottom of the page. It consists of the word "embraco" in a lowercase, white, sans-serif font. The background of the page is a gradient from teal on the left to light green on the right, with two wavy lines (one white, one light green) curving across the bottom.