



# Sustainability

Communication  
on Progress **2017**



This is **Embraco's Communication on Progress** in the process of implementing the **United Nations Global Compact** principles, supporting broader UN goals.

embraco



## PRESIDENT STATEMENT

The world we're going to leave for future generations depends on decisions taken today. Based on that, the United Nations (UN) launched a global agenda for sustainable development towards 2030, with a set of global goals that governments are expected to adopt and that require partnerships with private sector, civil society and citizens.

At Embraco, we see these goals as opportunities to solve global challenges through innovation, investment and collaboration. We work to be at the forefront on our mission to develop innovative solutions for a better quality of life, by meeting our customers' demands and differentiating ourselves through high performance, energy efficiency and reduced usage of natural resources in over 80 countries that Embraco has commercial presence.

This combination of technology drivers and sustainable development has been part of our DNA and has brought new opportunities to innovate. We're not only improving the overall refrigerator's operations through energy consumption savings and superior food preservation, but also offering services to expand our portfolio related to reverse logistics and Internet of Things.

In our plants, we have advanced with the implementation of WCM - World Class Manufacturing, a methodology that helps us to improve productivity, energy and water consumption, while minimizing possible negative impacts of operations.

In the next pages, you can check out, in detail, the outcomes and achievements reached during 2017 by our talented and engaged team. Also, in this Communication on Progress (COP) we share our actions and initiatives to continually support and uphold the ten UN Global Compact Principles.

Have a good reading.

**LUIS FELIPE DAU**  
President of Embraco

# EMBRACO'S PROFILE

Promote quality of life through innovative solutions for refrigeration: this is the mission of Embraco, one of the largest global cooling specialists.

**11**  
business units

**1,700**  
patents granted

Today, we're present in over 80 countries showcasing technologies that advance high performance and energy efficiency. We provide cooling solutions for household, commercial - such as medical applications, food retail and services - distribution and aftermarket segments. Through partnerships with startups and digital services, we also deliver value and intelligence to customers.

Innovation is in our DNA and it happens based on our **MISSION** and **VALUES:**

To provide innovative solutions for a better quality of life.

Respect  
Integrity  
Diversity with Inclusion  
Teamwork  
Spirit of Winning



## A TEAM OF TALENTS

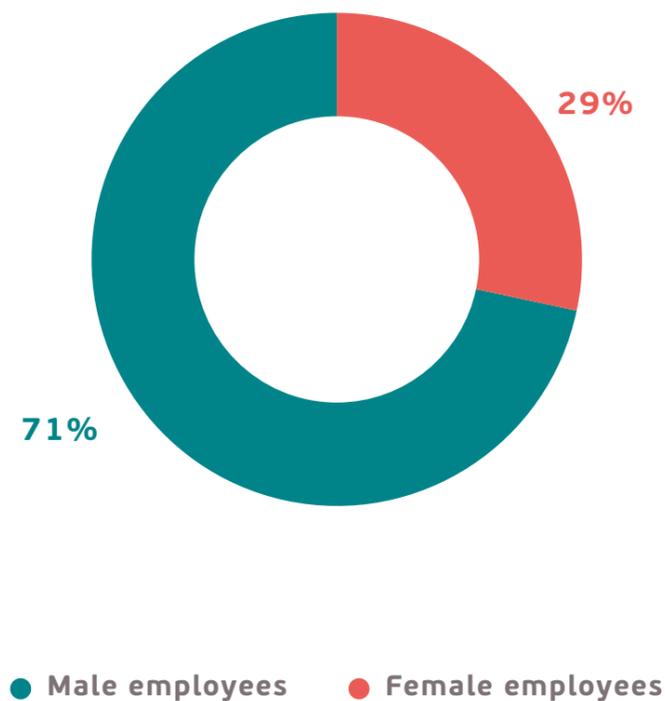
Our employees are an essential pillar to our business. Present in different continents, with multiple nationalities and cultures, we have a talented team divided as follows:

### EMPLOYEE PROFILE

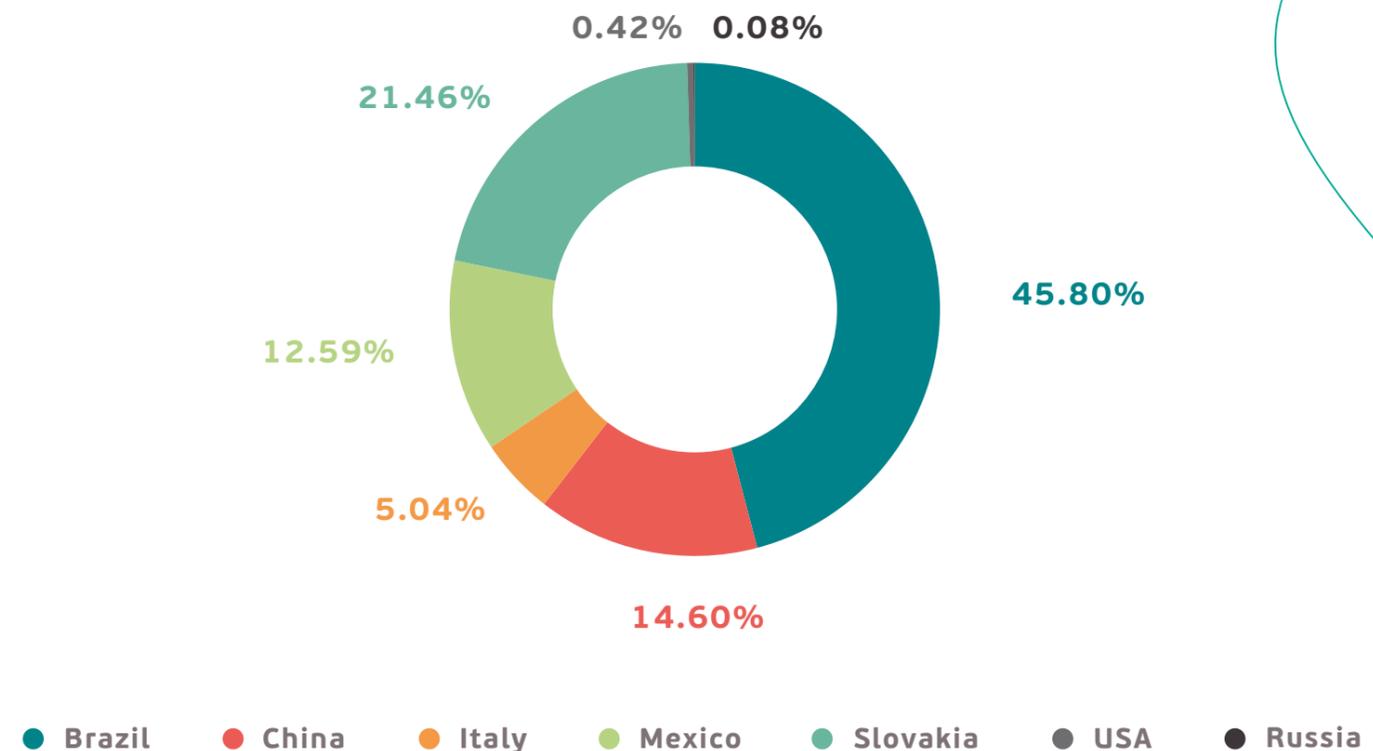
**In total, Embraco has 10,698 employees.**

*Numbers collected on December 31, 2017.*

Distribution of employees by gender



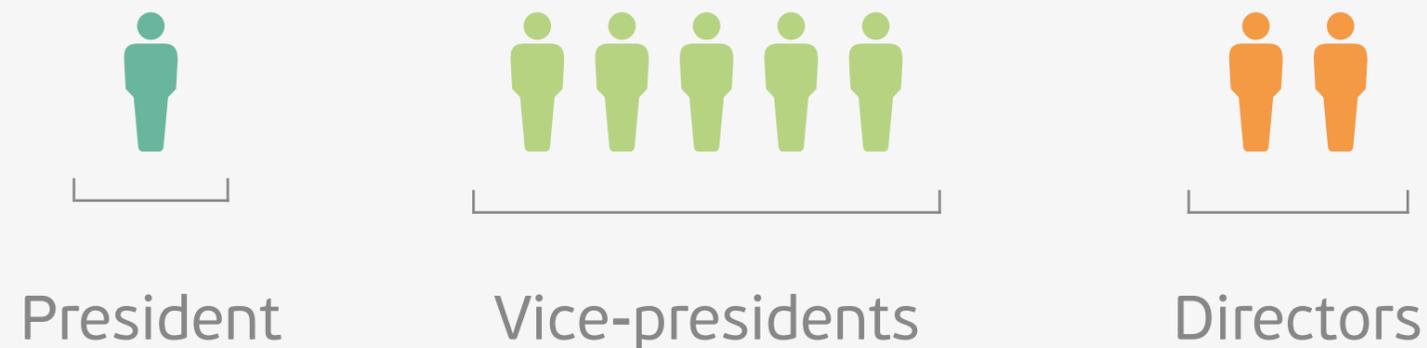
Distribution of employees by country



## Embraco's corporate governance

At Embraco, there is a "staff" composed of the **President, five Vice-presidents and two Directors**. This group is responsible for defining and monitoring the execution of the company's strategy; analyzing the organization and the executives' performance; and creating long-term and directional goals aligned to our mission.

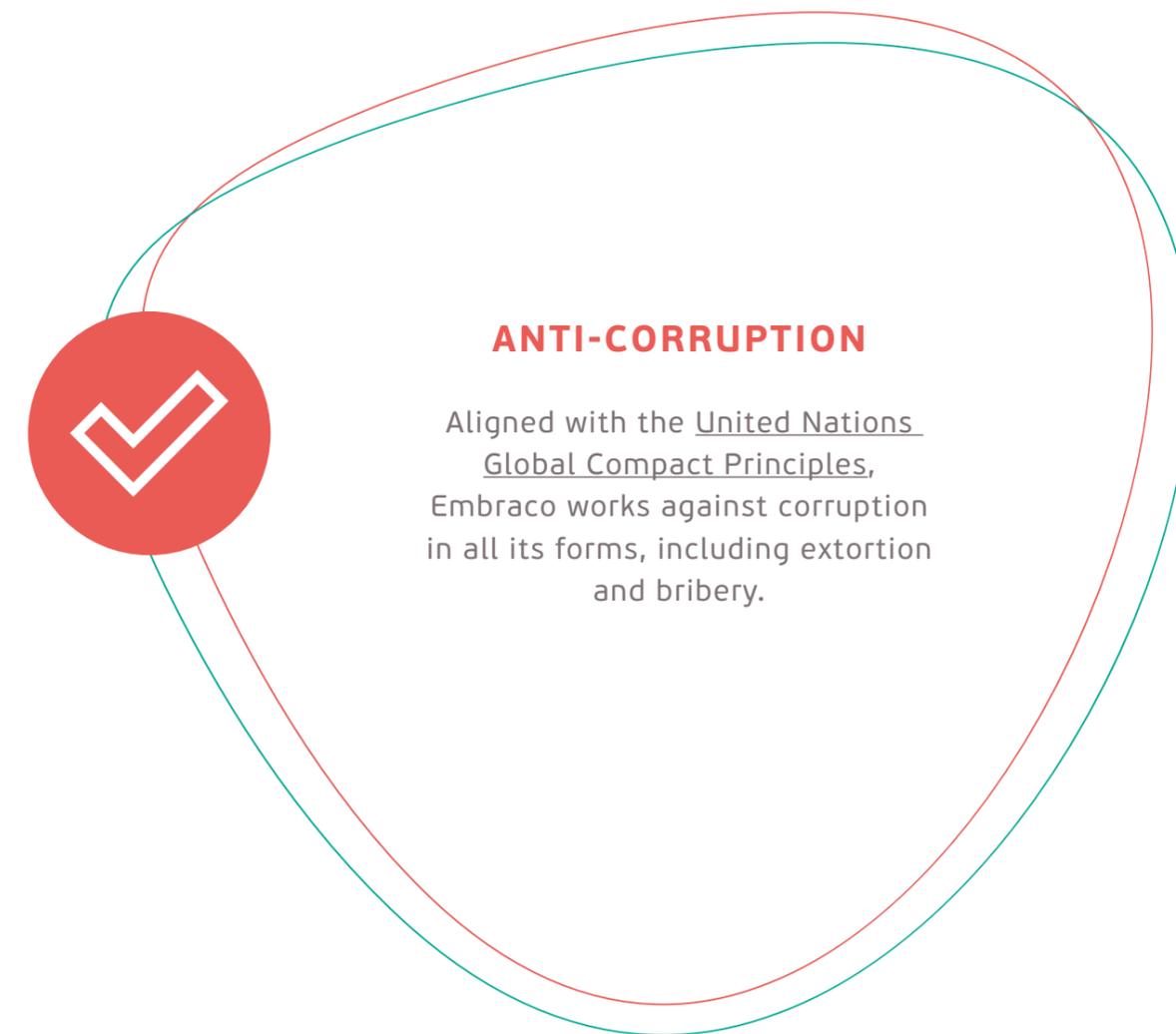
The staff also evaluates key decisions in the economic, environmental and social aspects that influence our company's results, and is responsible for the risk management of the organization.



**All those involved in this structure are responsible for the creation of goals fully aligned with the organization's mission and long-term objectives.**

## Compliance

Embraco's reputation is a direct reflection of its daily performance. To ensure that business and people are aligned to our values, we have an Ethics Committee, composed of representatives from Compliance, Audit, Corporate Security and Labor Relations areas. This committee is responsible for reviewing our policies, accounting records and internal controls and also to guarantee that international requirements are being followed, such as Sarbanes-Oxley (SOX), a US law created to reduce the risk of financial fraud.



## OUR VALUES AND PRINCIPLES

To maintain an environment where open and honest communications are the expectation, not the exception, ethics principles should guide not only employees' conduct, but also other stakeholders'.

All publics can be aware of the expected behavior and practices through these Embraco's official documents:

- Principles and Organizational Values Letter;
- Code of Ethics;
- Global Compliance Policies (GCP)

We have 15 GCPs to further explain some topics, as Antitrust Competition Laws, Diversity, Equal Opportunity and Respect in the Workplace and Environmental, Health & Safety.

Beyond these official documents, we count on a **Compliance team**, that makes sure that it permeates all our company and is responsible for **some specific actions**, such as:

Periodic **assessment of documents** and internal procedures for continuous improvement.

Creation and implementation of specific procedures related to **global compliance policies** in our units, like donation and freedom of association.

**Complaint channels management:** All publics can raise a concern anonymously, where local law permits, using our confidential Ethics Hotline, available by phone or **online**.

[Check here](#) for more information about each country.

**Employees' training** and communication about Ethics matters.

### ADMINISTRATIVE EMPLOYEES' TRAINING 2017

#### ETHICS



**1,400**  
employees

**47**  
sessions



**75%**  
of leaders  
presence

#### COMPLIANCE E-LEARNINGS



**3**  
sessions

**100%**  
of administrative  
employees





## SUSTAINABILITY

For us, at Embraco, Sustainability goes beyond developing innovative solutions and ensuring efficient operations, it's part of this company's beliefs. Through our committed team, we're able to share value with partners, customers, suppliers and society while sustaining our business growth and mission of delivering a better quality of life."

### URSULA ANGELI

Vice-president of Sustainability,  
Human Resources and Communication

# SUSTAINABILITY

We develop sustainability through three workstreams:



## SUSTAINABLE SOLUTIONS

We're committed to provide high energy-efficient solutions, and this is strategic for the research and development area, as well as reduce the environmental impact through the entire life cycle.



## SUSTAINABLE VALUE CHAIN

Our vision of sustainability extends throughout our value chain, from the purchase of raw material to our own operations.



## ENGAGED PEOPLE

We develop and engage employees in our culture of diversity to promote their safety and professional growth, and contribute to the communities in which we are located through social programs and volunteer work.

## EXAME SUSTAINABILITY GUIDE

In 2017, we participated for the 8th time in the ranking of Brazil's most sustainable companies, according to the Exame Sustainability Guide. We were recognized in the Electronics category for the Nat.Genius case – a program originally created to recycle compressors that is now considered an international reference in circular economy (read more on page 12).



# SUSTAINABILITY & SDG INDEX

Our commitment to sustainability is also reinforced by our support to the Sustainable Development Goals (SDG), and for the fact that we've been signatories of the Global Compact since 2004 – both initiatives proposed by the United Nations (UN).

Check out how each topic is aligned with the SDGs:

## EMBRACO'S PROFILE

A TEAM OF TALENTS

COMPLIANCE

OUR VALUES AND PRINCIPLES



## SUSTAINABLE SOLUTIONS

Provide high energy-efficient solutions and reduce environmental impact through the entire life cycle.

## SUSTAINABLE VALUE CHAIN

Improve productivity and reduce impacts from raw material to our own operations.

## ENGAGED PEOPLE

Promote employee safety and professional growth, contribute to the communities.

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8 HEALTH & SAFETY

4 TRANSFORMING COMMUNITIES

Click on each SDG to know more.



## Sustainable solutions

Innovation is at the center of our strategy and encompasses not only the development of our products, but also new business models, digital services and processes.

Our goal is to help customers and stakeholders succeed, evaluating new opportunities for partnerships in household, commercial - such as medical applications, food retail and services - distribution and aftermarket segments.

### RELATIONSHIP WITH CUSTOMERS

- Characterized by long-term partnership;
- Co-development actions generating business opportunities;
- Assessment of the level of customer satisfaction.

In 2017, **226** customers from **56** countries answered the survey. Our highest score was in product performance, with good ratings in product quality, quality assistance, supplier responsiveness and technical support.

### RELATIONSHIP WITH REFRIGERATION MARKET

From the beginning of our trajectory we have built a relationship of trust with the professionals of the segment, through educational and technical contents. One of the channels with the greatest interaction with the public is the Refrigeration Club, that was created as a print magazine 34 years ago.

For the past five years, the Refrigeration Club has also a website available in more than five languages, creating an interactive forum to exchange experiences. In the last two years, the website received more than **800,000 visits** and consolidated itself as a reference in refrigeration industry news and practices.



### TOOLBOX APPLICATION

We also provide digital services through Embraco ToolBox (available for download at [App Store](#) and [Play Store](#)). It assists the professionals on day to day tasks, offering a set of virtual tools in the same place, such as:

- Nearest distributor search tool
- Embraco's product catalog
- Cross-reference product guide
- Refrigerant Slider
- Exclusive training and lecture schedule



### INNOVATIVE PORTFOLIO

To improve energy efficiency, fight climate change and deliver value for the business, we develop innovative and sustainable solutions considering the entire life cycle.

Embraco's pioneering research has led to the development of new technologies and solutions, such as variable speed and products that use **natural refrigerants**.



For more than 20 years, Embraco has used natural refrigerants as an alternative to reduce the negative impacts on the ozone layer, greenhouse effects and to improve the equipments' efficiency index.

SOME EXAMPLES:



#### VESF FOR HOUSEHOLD

This Fullmotion solution with high performance is capable of reducing energy consumption by up to 45%.

#### FMFT FOR LIGHT COMMERCIAL

With variable speed, it reduces up to 30% when compared to the most conventional compressors.



#### PLUG N' COOL FOR SUPERMARKETS

A complete solution with high energy efficiency that uses natural refrigerant (R290).

## NEW BUSINESS

Besides our current business, we seek opportunities to expand our portfolio with our **New Businesses area**, through partnerships and digital services that anticipate market trends and help solve customers' or end-users' challenges.



Developed based on the Internet of Things (IoT), diili understands the operation of commercial freezers and refrigerators, indicates the equipment's location and alerts about lack of stock, faults or the need for preventive maintenance.

The intelligence generated enables brands to better understand its consumer while supporting processes that can result in sales increase. It also reduces maintenance costs and has the potential to decrease the refrigerator's energy consumption by **15%**.



In 2014, we took inspiration from nature to create Nat.Genius, a reverse logistic operation that generates positive impacts for the environment through recycling, reuse and remanufacturing of several electronic products at the end of their useful life.

Since 2016, Nat.Genius has also been using its know-how to offer waste management consultancy services for its customers around the globe. There were projects developed in Europe, Mexico, China and USA.

### SOME RESULTS

In the last 3 years, Nat.Genius recycled more than **20 thousand** tons of materials:

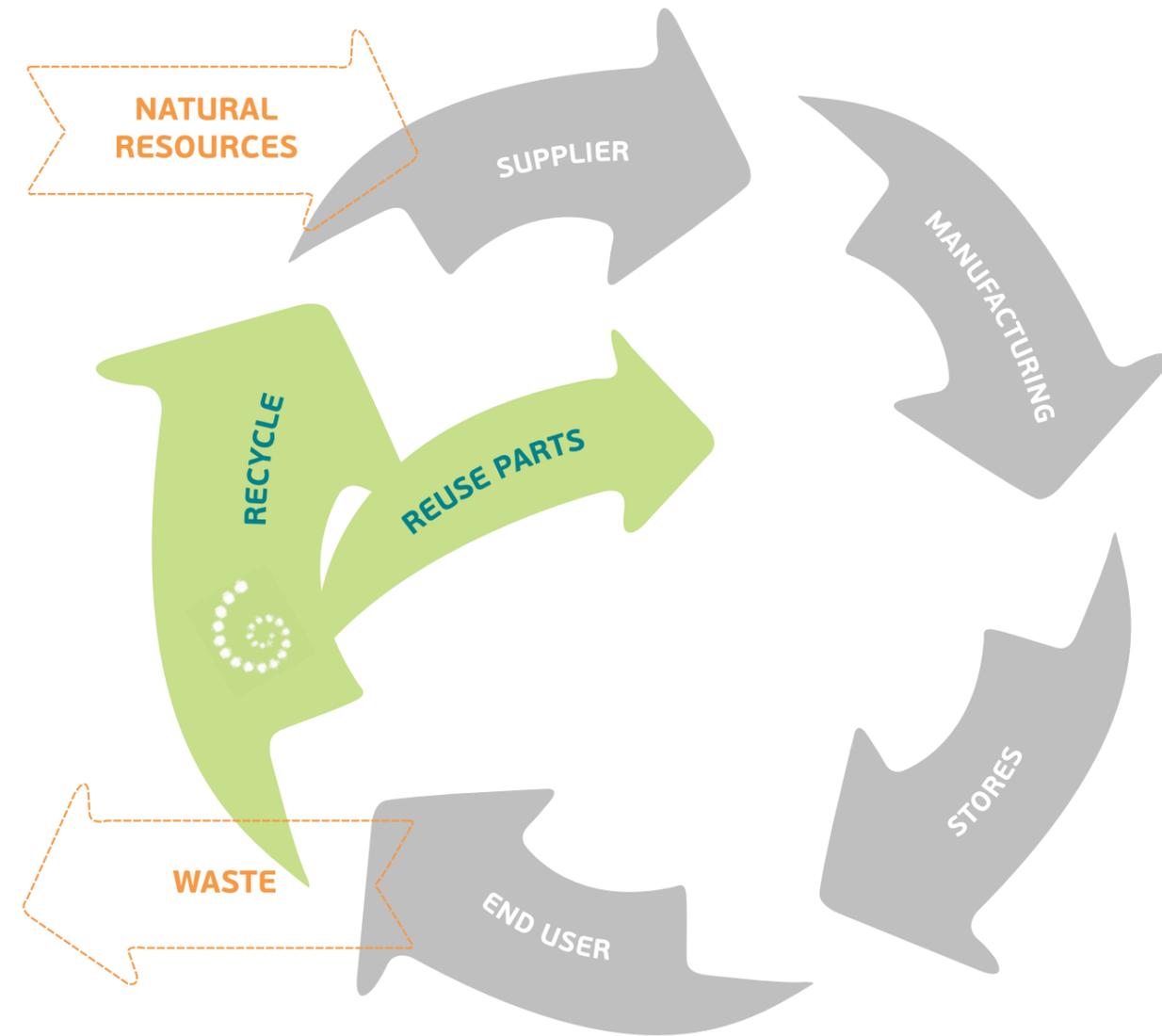
**13.4k**  
tons of steel

**4.8k**  
tons of iron

**1k**  
tons of copper

**1.6k**  
tons of plastic

*The representative impact of this business was recognized by the Ellen MacArthur Foundation, which considers it as a world reference.*



## Sustainable Value Chain

To continually increase efficiency and reduce direct and indirect impacts, we work with the entire value chain looking for opportunities.

### SUPPLIERS

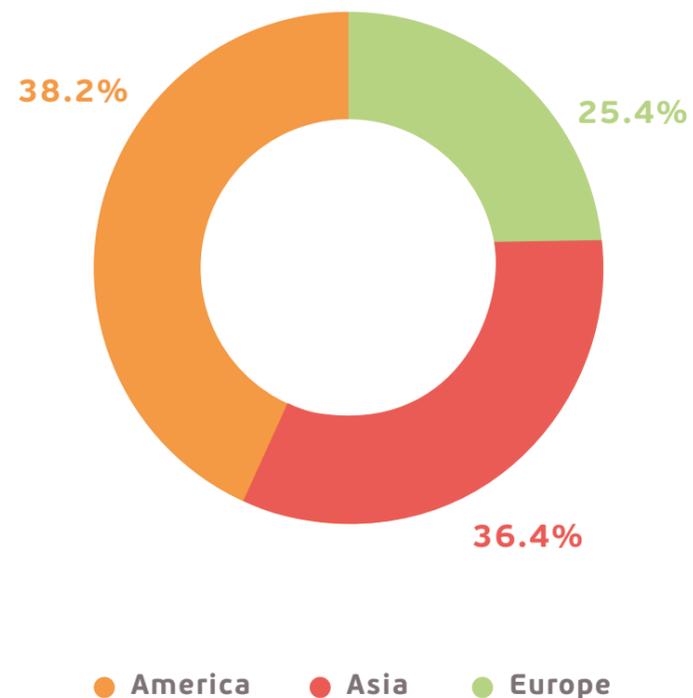
More than having a qualified supplier base, it is essential to ensure legal compliance and encourage sustainability best practices. That's why our suppliers also have to be aware and aligned with our Code of Conduct, which focuses on matters like: anti-corruption, discrimination, non-tolerance of slave and child labor, deforestation or other environmental infractions, and non-compliance with labor laws in the country.

#### CODE OF CONDUCT

In 2017, we had **82%** supplier adherence to our code of conduct.

There are several aspects (Quality, Logistics, Cost and Sustainability) considered in sourcing, development and supply base management. By following those requirements, in 2017, we worked with **443** direct material suppliers from **3** different continents.

### Supplier Geographical Distribution



In the Procurement department, we combine the benefit of having suppliers with the ability to deliver their material globally with those that act more local, supplying for just one plant.

### STRATEGIC MANAGEMENT OF DIRECT MATERIAL SUPPLIERS



### SUPPLIER'S DAY

Once a year, we gather partners from our supply chain and hold the Supplier Day event to recognize and engage with this strategic audience. In 2017, **250** suppliers took part in events held in **Brazil** and **China** (both Beijing and Qingdao plants).

### OUR OPERATIONS

Since 2013, we've adopted **World Class Manufacturing (WCM)**, a structured, rigorous and integrated methodology to enhance our operational performance.

By the end of 2016, all of our plants had implemented it, resulting in continuous improvement and simplification, while leveraging people's capabilities to eliminate losses and wastes.



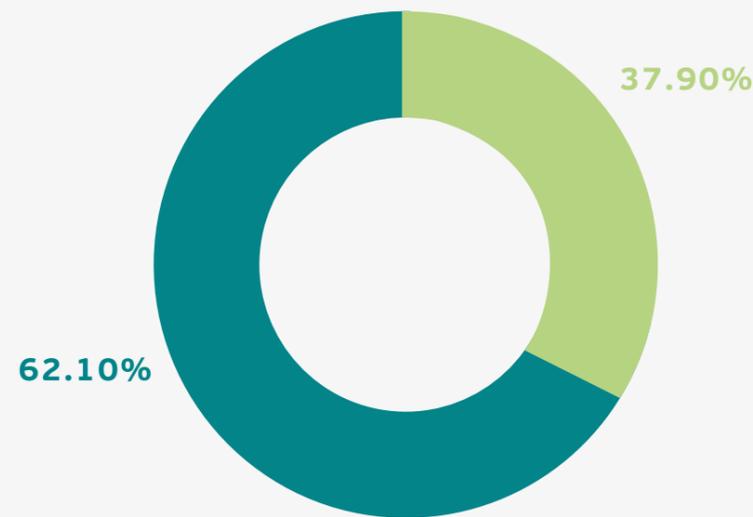
### ENVIRONMENTAL EFFICIENCY

With WCM we continuously seek to have a lean manufacturing and improve our environmental performance, eliminating risks related to environmental legislation and maximizing opportunities and best practices.

### ENERGY

In 2017, we consumed 1,449,926,397 MJ of energy.

#### ENERGY CONSUMPTION IN 2017

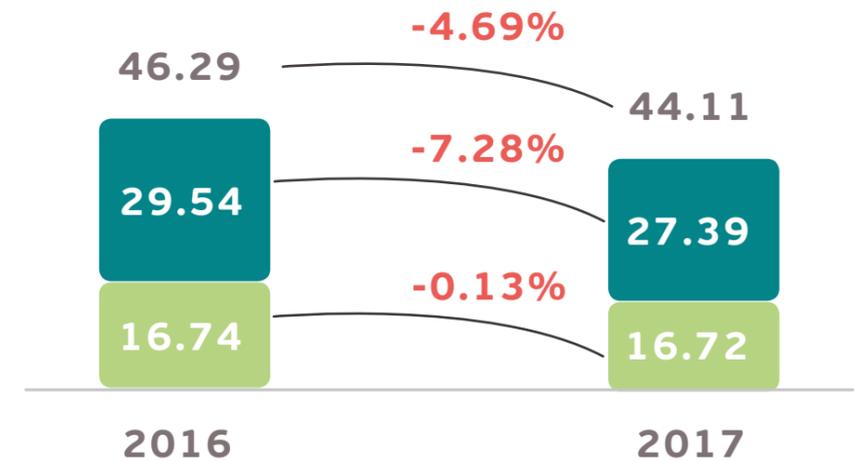


- **INDIRECT ENERGY**
  - Electricity
- **DIRECT ENERGY**
  - Natural Gas
  - Diesel
  - Gasoline
  - Liquefied Petroleum Gas (LPG)

When we look at the relative global number, we can see that the ratio of MJ per compressor produced, considering total energy consumption, was 46.29 in 2016 and 44.11 in 2017, which means that we used 4.69% less energy per unit produced.

More than that, considering just electricity, the reduction was up to 7.28%. Mainly due to adoption of several energy efficiency initiatives in our plants resulting from implementation of WCM.

#### ENERGY CONSUMPTION RATE (MJ/COMPRESSOR)

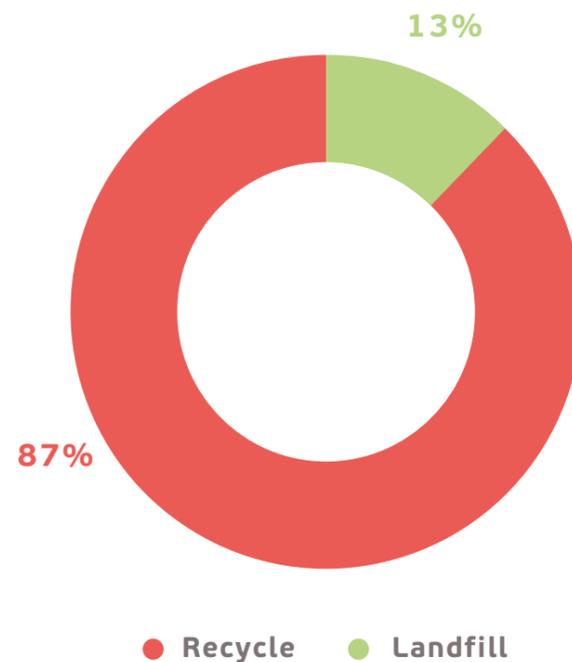


● Direct energy ● Indirect energy

**WASTE**

Considering our global operations, in 2017, we generated 124,442 tons of waste. Of this total, 87% were recycled, co-processed or incinerated and 13% were sent to landfill.

**DESTINATION OF HAZARDOUS/ NON-HAZARDOUS WASTE IN 2017**



**WATER**

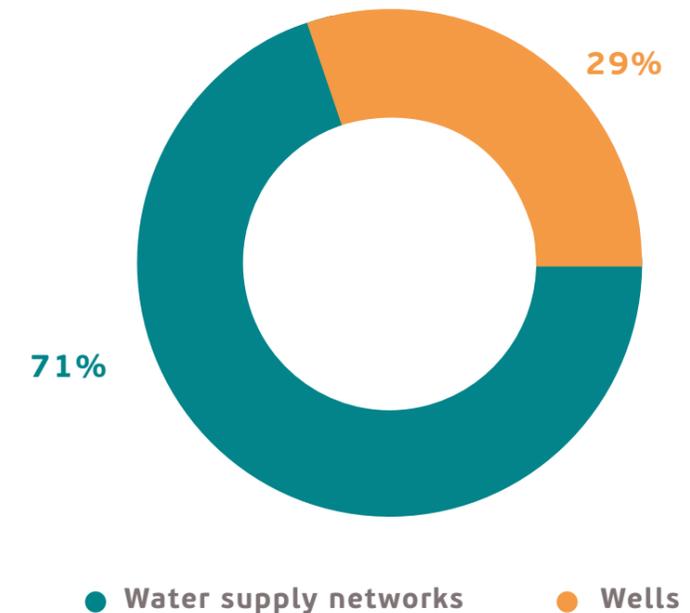
In 2017, we reduced by 7.34% the consumption of potable water globally. For each produced compressor, 18 liters were used, two less than in 2016, which means more efficiency in the process.

In practice, the company avoided consuming 48 million liters of water in the production process during 2017, enough for the annual consumption of 1,200 people\*.

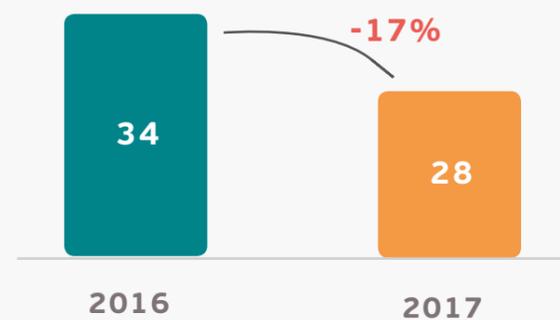
*\*considering the UN average that 110 liters per day are enough for basics needs.*

**INCOMING WATER CONSUMPTION**

Last year, we consumed 606,647m<sup>3</sup> of incoming water.



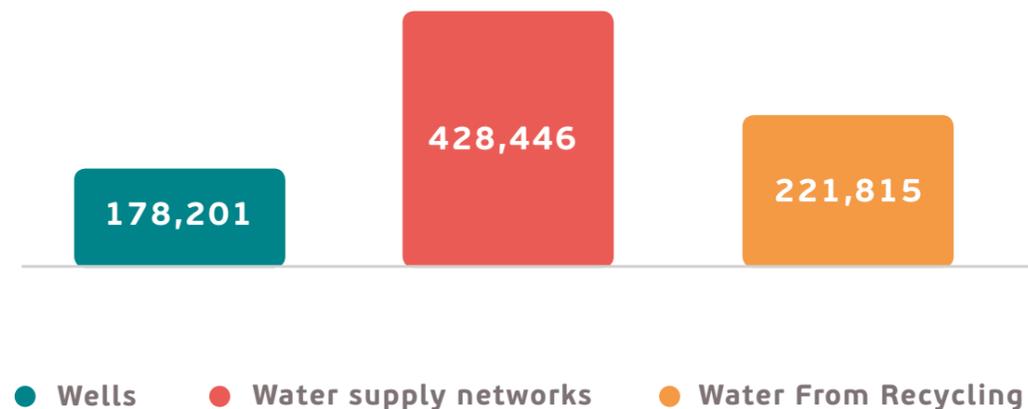
**WASTE SENT TO LANDFILLS RATE (g/COMPRESSOR)**



Considering just our compressors plants, to each produced compressor, we've sent only **28g** of waste to landfill and we have a global target to zero out this number.

We also use **WCM 5Rs** approach to help us achieve Zero: we first think about how to REFUSE and REDUCE waste generation, then look for the correct way to REUSE, RECYCLE and RECOVER.

**TOTAL WATER CONSUMPTION (m<sup>3</sup>)**



**WASTEWATER TREATMENT AND WATER REUSE**

To prevent the pollution of natural resources, all of our plants have internal wastewater treatment. Beyond that, compressor plants in Brazil, China and Mexico reuse this treated water in discharges of toilets, cooling tower, garden irrigation or sidewalk washing.

Considering all the water consumed by the company, including potable and non-potable, **27%** was from reuse.

## CERTIFICATIONS

To guarantee sustainability in all global markets, Embraco has the following external 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.



### OHSAS 18001

Focused on occupational health and safety management, it provides a framework to identify, control and decrease the risks at the workplace.



### IECQ QC 080.000

Establishes procedures for manufacturers of electrical and electronic products and components to implement a management process of hazardous substances.



### ISO 14001

Guides the implementation of environmental management systems to enhance environmental performance and fulfil compliance obligations.



### ISO TS 16.949

In conjunction with ISO 9001, defines quality management system requirements for the design and development, production and, when relevant, installation and service of automotive-related products.



# Engaged People

For Embraco, people's safety and development are part of its core strategy.

## PEOPLE EXCELLENCE

Our **People Excellence** strategy aims to unleash individual and collective talents and inspire a winning culture.



Extraordinary performance



Great people



Winning culture

We also believe that all employees should be protagonists of their careers and development within the company.

### Our Leadership Model inspires everyone to live and lead the Embraco values:

**CREATE**  
a compelling and inspiring strategy

**BUILD**  
and sustain broad followership

**DRIVE**  
differentiated results

## ENGAGEMENT

To measure the level of employee engagement, we carry out an annual survey. **In 2017, 86% of Embraco's employees responded and our overall rate was 76%.**

In 2017, Embraco was featured for the 10th time in the **Best Companies to Work guide**, published by Você S/A magazine, which recognizes the most prominent organizations for HR and management practices.



### Talent Attraction

Recruitment and selection processes are carefully done considering our Leadership Model, Values and Strategy. The internal recruiters also conduct end-to-end processes, taking into account specific relevant information for each position and country, always focusing on diversity of gender and nationality.

## PROFESSIONAL DEVELOPMENT

To boost out talents' professional growth, we use **Career Compass**, a tool that helps employees map, discuss and document a career journey.

**W career** is also a tool that supports employees to drive their own careers, and it's divided into three paths:

- **Technical:** employees who work in research and engineering functions and are involved in product transformation processes.
- **Projects:** employees who work on larger projects defined in the Global Product Leadership (GPL), with high technological and managerial complexity.
- **Administrative:** employees working in the administrative and support areas, not involved in product transformation processes.

### OUR DEVELOPMENT PROGRAMS ARE BASED ON:



**Experience**

means **possibilities**



**Exposure**

means **challenge**



**Education**

means **discovery**

The goal is to provide options to support employees throughout their careers.

**WCM's People Development team** is a key player to transform the company in a continuous learning organization and speed up the transformation process. Based on a systematic approach, this pillar sustains the development from the plant director to the operator.

## RESPECT FOR LABOR

Present in seven countries, we're always focused on complying with local labor laws:

### COLLECTIVE BARGAINING AGREEMENTS

Country / Plant	Percentage of employees covered
Brazil	100%
China (compressors)	100%
Italy	100%
Mexico	74%
Slovakia	100%

Our operations in Qingdao, United States and Russia don't require separate bargaining agreements.

## HEALTH AND SAFETY

We have a very strong leadership commitment to ensure safety on a daily basis. In addition to the locations' routines, where each plant holds weekly meetings to discuss safety matters, the subject is also the first topic discussed at the monthly Leadership Meeting, in which the President, Vice-presidents and Directors of all units take part.

To achieve the desired Safety Culture, we need to engage all Embraco employees, visitors, customers and contractors. Our Global Compliance Policy covers this topic and we have also a more detailed guideline named **Safety Golden Rules**.

### THE SAFETY GOLDEN RULES:

- Created to **spread awareness of safety behaviour** and how to act in daily situations;
- Covers the **main topics and risks** of our company;
- It's **standardized in all plants** for our employees, suppliers and visitors (all people that enter a manufacturing site must be aware of it).

Also, in order to manage operational safety, we use WCM, that has a clear objective to achieve and maintain the goal of **ZERO** accident.

The following initiatives also add value while protecting our people:



#### Best Practices Platform

in which our teams share the solutions and improvements that are extended to other sites.



#### Daily safety dialogue

to reinforce safe behavior among blue collars in blue collars in all shifts in manufacturing areas.

27,045

#### Safety Kaizens

(improvements) suggested by blue collars.



#### Safety Management Audit Training (SMAT)

a tool that seeks to create a safe work environment through the observation of employees' behavior.

Autonomous Safety Group: created by blue collars to take ownership and lead safety routines while practicing specific activities as inspections, audits, checks, trainings to support their development in the Safety learning.

Leadership Safety Audit: a specific SMAT where leadership is directly responsible. In 2017, we registered an overall of 4,980 audits.

With all these initiatives, we ensure the safety of our people and reach important advances: all sites' Days Away cases' rate results in 2017 is 0.11, which is around 9 times better than the average.

\*Reference from 2015 U.S. Bureau of Labor Statistics, considering U.S Manufacturing Industries.

### TRANSFORMING COMMUNITIES

Being a multinational company, we have different opportunities to make a positive impact around the world. In this sense, Embraco has a **global policy** to guarantee alignment with the business and local teams, to better understand the different cultures and act according to the needs of each community.

We engage employees to **volunteer** in activities that bring benefits to the people living around the plants and offices globally. Our activities also contemplate **social projects** (as Embraco Ecology Award), **donations** and technical support to local NGO organizations that develop projects or activities that generate positive impacts for the society.

## 2017 Embraco Social Investment Activities

over **16,000** people benefited

**1,800** hours of community work

#### USA

Community work  
Donations

#### SLOVAKIA

Community work  
Donations  
Social Programs

#### CHINA

Community work  
Social Programs

#### MEXICO

Community work  
Donations

#### BRAZIL

Social Programs  
Donations

#### ITALY

Social Programs



**Overall coordination**

Embraco - Corporate Communication and Sustainability

**Writing, Translation,  
Revision, Layout and Production**

**ação integrada**

**embraco**

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