



# MANAGEMENT **REPORT 2016**

ZEN S.A.





In spite of the unfavorable economic scenario in 2016 our invoicing grew 8% compared with the previous year. This result was possible thanks to a long-term strategy which diversifies the performance of ZEN between the domestic market and that of exports, both in the original segment and the spare parts one.

Furthermore, in recent years, the expansion of the product line and the breakdown of measures related to management and operational excellence significantly improved aspects related to productivity, quality, management of human resources and, consequently, the satisfaction of our coworkers and customers.

For 2017 Brazil is expected to recover a little in the economic scenario, and we shall ensure the continuous growth of the company by means of new business which has been gained in the automotive market, as well as the continuous expansion of the product lines for the global spare parts market.

We should like to thank all those who have taken part actively in the growth and development of the Company.

Gilberto Heinzelmann  
CEO





# ZEN S.A. INDÚSTRIA METALÚRGICA

## WORLD LEADER IN START IMPELLERS

ZEN S.A. Indústria Metalúrgica is the world leader in starter drives and a global reference in this product line. Founded in 1960 by the brothers Hylário and Nelson Zen, the company performs in the segments of car parts for light and heavy lines, producing annually approximately 10 million components for more than 2,000 models of automotive vehicles.

Its portfolio includes starter drives, alternator pulleys, belt tensioners, alternator bearings, planetary gear bearings and components shaped by cold and warm forging, for differential and rings for ABS systems.

Supported by the Lean management system, ZEN maintains a strict quality process certified by standards ISO 9001, ISO-TS 16949 and ISO 14001. With a high degree of competence and vision focused towards the global market, the company has attained constant growth, exporting its production to more than 60 countries and acquiring a large market share in the Original Equipment Manufacturer (OEM) and Independent Aftermarket (IAM) segments.

### MISSION

Develop, produce and supply components and systems for automotive vehicles, for the original and spare parts segments, generating value for business, customers and society.

### VISION

Be an instrument for sustainable progress which gains the preference of our customers and the pride of our team, through innovation, quality and operational excellence.



COMMITMENT  
SENSE OF URGENCY

SINCERITY  
ENTREPRENEURIAL SPIRIT

INTEGRITY

### VALUES



# CORPORATE GOVERNANCE

Founders: Hylário Zen and Nelson Zen (in the middle)

Members of the board (left to right):

Janete Zen (Counselor)

Antonio Carlos Zen (Vice President)

André Zen (Counselor)

Flavio Cesar Maia Luz (President)

Marcos Sergio de Oliveira (Counselor)

Paulo Cezar Nunes (Counselor)

Nelson Zen Filho (Counselor)





## MANAGEMENT FOCUSED ON RESULTS

ZEN S.A. Indústria Metalúrgica is a joint stock company, of closed capital and family origin. Its corporate governance structure follows global standards, based upon transparent communication, the guarantee of the best practices in decision-making processes and a management focused upon the alignment of objectives.

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Following these directives, in 2016, ZEN continued its operational improvements, investing in innovation and reinforcing conduct for increasing its competitive capacity and strengthening its position of leadership in the global car parts market.

The following highlights the evolution of ZEN S.A. Indústria Metalúrgica in 2016:

### RISK MANAGEMENT COMMITTEE ENSURING THE DURABILITY AND SOLIDITY OF BUSINESS

Implemented in 2015, the Risk Management Committee is an important internal control tool. Its performance is continuous and essential to reduce the vulnerability of ZEN to the threats of the internal and external environment, ensuring the continuity of business and its solidity.

### ZEN CODE OF ETHICS AND CONDUCT RELATIONSHIPS BASED UPON INTEGRITY AND RESPECT

Ethical principles rule the business of ZEN and are described in its Code of Ethics and Conduct. The document guides the conduct which must be adopted by the company coworkers in exercising their activities and in the relationship with customers, competitors, community, governments and suppliers. To achieve these principles and ensure their fulfillment, ZEN makes available exclusive communication channels to receive reports regarding that which is not in tune with the guidelines of the Code. These reports can be made by coworkers, suppliers and/or third parties, anonymously and with secrecy guaranteed, by means of site and email.

Site: [www.zendenuncia.com.br](http://www.zendenuncia.com.br) E-mail: [etica@zensa.com.br](mailto:etica@zensa.com.br)





## COMPLIANCE AND COMBATING CORRUPTION

### ETHICS AND TRANSPARENCY IN CONDUCTING BUSINESS

To ensure that ZEN complies to the letter with all the impositions of the regulatory bodies and conducts its business in an ethical, full and transparent manner, the company maintains a structure of processes and routines which ensure fulfillment of the legislation, widely known as Compliance. Furthermore, it reinforces the irrevocable commitment to ethical behavior by means of continuous training of its leaders and professionals of the company.



## INFORMATION SAFETY

### INVESTMENTS WHICH ENSURE DATA SAFETY AND CONTROL

To ensure information safety and control, ZEN started, in 2016, the redefinition of the Policy with directives which aim to reduce risks caused by possible ruptures of nondisclosure and availability of company information.

The first actions were taken with the structuring of the Information Safety Project, with actions in technology, people and processes and the creation of a committee to deal with this issue.





A background image of a robotic arm in a factory, with orange geometric overlays in the top-left and bottom-right corners. The text 'OPERATION' is overlaid in a large, white, outlined font.

OPERATION

# **OPERATIONAL EXCELLENCE**

EXCELLENCE





## PRODUCTION ALIGNED WITH INTERNATIONAL STANDARDS

In order to remain an outstanding supplier in the global car parts market, defending its position of leadership and continuing to grow, ZEN has invested continually in processes and people, which guided by the Lean Manufacturing philosophy ensures high management and quality standards. Acknowledged as an innovative company, ZEN takes part in the demanding automotive market developing products of extremely high quality, supplying original and spare parts markets in more than 60 countries. All this is only possible with a high level of operational excellence.

In 2016, we can indicate the following results:



## LEAN MANUFACTURING

### 10 YEARS INVESTING IN OPERATIONAL EFFICIENCY AND QUALITY

The Lean Manufacturing System, which aims to eliminate waste in all productive activities and processes, was adopted by ZEN in 2006, initially in certain production areas. As of 2012, this model was incorporated by the company as a whole and today is part of the strategic planning, guiding actions throughout ZEN. A transformation which starts by people's behavior and reaches the shop floor defining standards, better processes, changes in layout of equipment and infrastructure.

The Lean philosophy is also applied in the administrative activities, ensuring that in these areas excellence is also obtained, and ensuring customer preference for the products and services which ZEN offers.



## PRODUCTION GUIDED BY VALUE FLOW

### CHANGES TO PRODUCE MORE VOLUME WITH HIGHER QUALITY

Following the handbook of best practices in the Lean application, in March 2016 ZEN made another step improvement by organizing the production flow by product families. To implement it, changes were made to the factory layout, organization and training of the team and changes in the manner of management. Now, each product family is called Value Flow.

The organization of the Value Flows brought significant results in terms of increased production capacity, improvement in customer service, reduced inventories and shorter lead times (the time that each part takes between the start of production and delivery to the customer).



## EVOLUTION OF INDICATORS

### 100% COMPLIANCE: PRIDE IN THE CONQUEST

In 2016, ZEN attained 100% compliance in the certification audits of ISO 9001 (Quality), ISO 14001 (Environment) and ISO TS 16949. The latter is specifically for the automotive sector. Considering the rigor adopted by the auditors, this result is considered to be rare in the automobile industry and confirms the commitment of the company to the excellence of its management processes.





## REINFORCING THE LEAN MANUFACTURING CULTURE

### COURSES AND EVENTS WHICH ENCOURAGE LEAN THINKING

The Lean culture is transmitted in the company by means of a set of attitudes and behavior focused upon the unceasing search for more efficient processes and intolerance for waste. One of the ways of reinforcing the commitment of people is by means of events and courses:

#### 2ND LEAN WEEK

##### BUILDING A LEAN COMPANY

In 2016, ZEN held the 2nd Lean Week – Building a Lean Company. In addition to employees, the event opened the doors to the Community and had the participation of universities and representatives of large national and multinational companies. The event was an opportunity to remember concepts, improve knowledge about the tools of the Lean system and exchange experiences.

| 800 hours' training  
| 405 participants  
| during one week

#### Companies participating in the ZEN 2nd Lean Week

Visitors: Círculo, Brunswick, Construmaq, Hergen and Hübner

Lecturers: Axonal, Duas Rodas, Krona, Blount, Instituto Senai and Furb

#### LEAN AGENT COURSE

##### CREATING MULTIPLIERS OF THE LEAN PHILOSOPHY

The Lean Agent course involves and develops the employees through a continuous education process which encourages Lean thinking, and provides the participants with the opportunity of applying the concepts in a real environment. The course lasts 90 days and, at the end, the participants present projects focusing upon the elimination of waste in their areas.

Since the first edition of the course, **140 coworkers** have become Lean Agents and **201 projects** have been presented.





## LEAN SUMMIT 2016

### ZEN IS AN EXAMPLE FOR THE LEAN COMMUNITY

Increasingly competitive and globalized, ZEN has proven to be a reference when on the topic of consolidating the Lean philosophy in the culture of the organization. Because of its experience and the good results obtained, the company was chosen to present its success story during the Lean Summit 2016 meeting.

## KAIZEN LEAN AWARD

### EXCELLENCE IN THE CONTINUOUS IMPROVEMENT SYSTEM

ZEN was also one of the three final companies competing for the first national edition of the Kaizen Lean award, in the category "Excellence in the Continuous Improvement System". The award is overseen by the Kaizen Institute Brasil, an organization with global reference in Lean methodology. Sixty companies from all over Brazil enrolled for the award. ZEN was selected as one of the best companies in Brazil to encourage leadership and motivate teams in the constant search for improvement.







IMPULSOR / STARTER DRIVE

BUCHA  
BUSHING

COROA  
GEAR

MOLA / ROLETE  
SPRING / ROLLER

ARRUELA  
WASHER

MOLA  
SPRING

EIXO  
SHAFT

BUCHA  
BUSHING

# MARKET AND BUSINESS

ANEL DE MANCAIIZAÇÃO  
COVER PLATE

ROLAMENTO  
BEARING





## PERFORMANCE AND GLOBAL PRESENCE

ZEN has companies and commercial offices strategically located throughout the world, making its products present on every continent.



## REVENUES



The innovations in the manufacturing process and development of new products increased the competitive potential of ZEN in 2016, and increased its share in the Original Equipment Manufacturer (OEM) and Independent Aftermarket (IAM) segments.

In 2016, 64% of the company's revenue came from exports and 36% from the domestic Market. In comparison, the 500 largest suppliers of the automotive industry had an average of 17% return from exports (data of Sindipeças).

## NEW PRODUCTS AND MARKET GAIN

The lines of OAP pulley and tensioners have displayed large market development. In 2016, the line of tensioners obtained 63% growth, while OAP pulleys reached 37%. In the domestic market, the start of the supply of the new starter drive for the commercial vehicles line and the starter motor planetary shaft were responsible for the increased market share of the company in the domestic OEM segment.







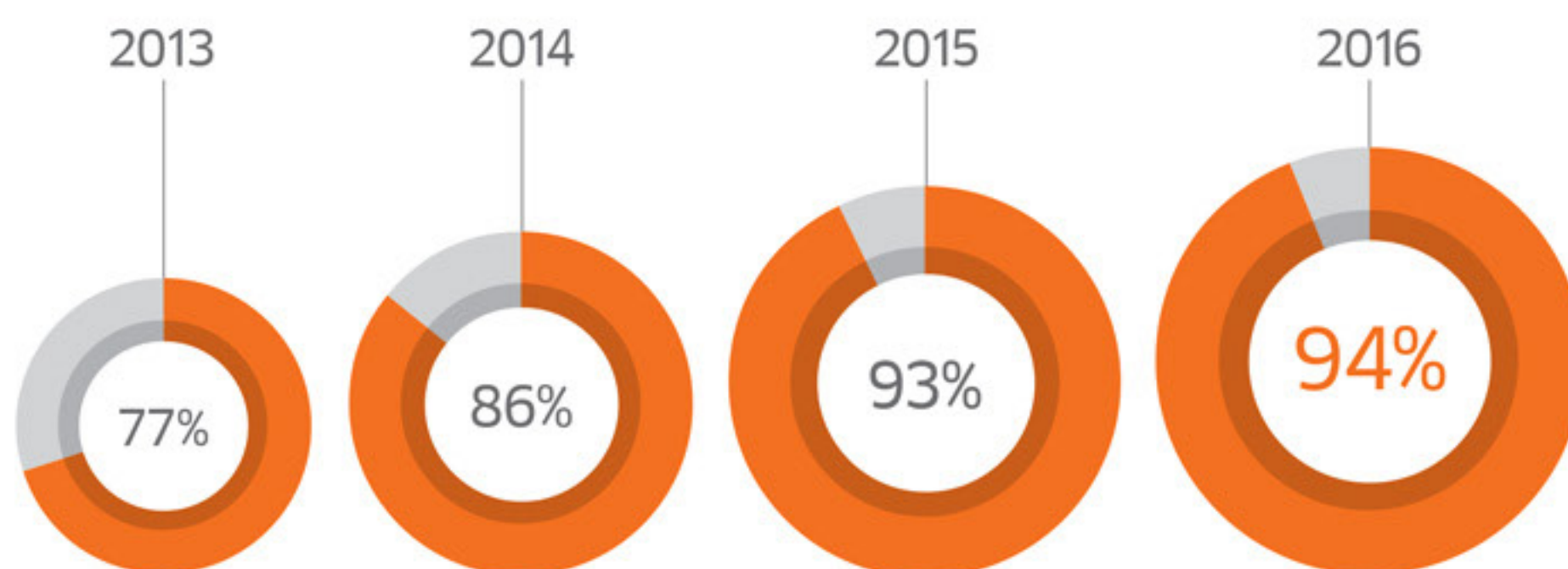
## ELECTRONIC CATALOG

All of the ZEN products can be found in an electronic catalog, available on the company's web site. The tool allows searches by parts family, technical information and comparisons between the items. There are approximately 1,600 products in the automotive, nautical and motorcycle parts lines.

## QUALITY INDICATORS

### CUSTOMER SATISFACTION

The focus upon quality and operational efficiency is present in the company's day-to-day operation, reflecting directly in the positive results obtained each year. In 2016, ZEN attained the record mark of 94% in the Customer Satisfaction Index. The indicator takes into consideration issues such as payment terms, delivery of orders and quality of the products, all of which are measured directly by the customers.



## DUN&BRADSTREET

### SOLIDITY IN BUSINESS

In the financial market, the company stands out for its solidity, commitment and integrity in business. Dun&Bradstreet - world leader in the supply of information to areas of credit, marketing, purchasing and areas of support and services - classifies ZEN at level 2.58 of negotiation risk. The scale varies from 1 to 6, where 1 means minimum risk and 6, high risk.





## PARTICIPATION IN TRADE FAIRS



### automechanika FRANKFURT

#### Automechanika Frankfurt 2016

In September 2016, ZEN took part in Automechanika Frankfurt, the largest world trade fair of the automotive industry, held in Germany. The company took advantage of the presence of global customers at the event to present some of the main items of its line, such as the alternator clutch pulleys and the starter drives. The exhibition was an excellent shop window for ZEN's products, and supporting Zen's export business which represents approximately 64% of its production.

### automechanika DUBAI

#### Automechanika Dubai 2016

Once again, ZEN was present at Automechanika Dubai - the largest international automotive aftermarket trade fair in the Middle East. As a shop window of novelties and trends for the large markets of Saudi Arabia, Iran and Asian countries, the trade show is strategically important for the company.



#### 8ª Autopar PINHAIS - PARANÁ

ZEN showed all its force in the original and spare parts Market in the car parts sector during the 8th Autopar – Trade Fair of Suppliers of the Automotive Industry, held in June 2016. At the event, the line of tensioners, alternator pulleys and starter drives was presented.



#### Latin Auto Parts Expo PANAMA CITY - PANAMA

For the first time, ZEN went to Panama to take part as exhibitor in Latin Auto Parts Expo. The event, held in June 2016, gathered together in the same space distributors of original and spare parts from all over Latin America and the Caribbean. With a market in full growth, the company made the most of establishing good commercial connections in the region.



#### Autop FORTALEZA - CEARÁ

Sole trade fair in Brazil furthered by an entity representative of class, Autop is an opportunity for new business and partnerships. More than 200 brands take part in this event, including large multinationals, factories and national and regional distributors.





PEOPLE

# PEOPLE AND COMMUNITIES

COMMUNITIES





## PEOPLE MANAGEMENT FOCUSED UPON RESULTS

ZEN acknowledges that human capital is its greatest asset, which translates into competitive advantages and the overall success of the organization in the market. The company invests in a systemic manner in the development and training of its employees by offering training courses, benefits, social incentives and programs of promotion and acknowledgement.

In 2016, this commitment was recognized when Zen won important awards in the area of People Management and the acknowledgement of ZEN as one of the 150 best companies to work in Brazil. The following are highlights of the Evolution of the company during 2016:



### 150 BEST OF THE MAGAZINE VOCÊ S/A ZEN LEADS THE RANKING OF THE BEST EMPLOYERS IN BRAZIL

In 2016, ZEN entered the select group of the 150 best companies to work at in Brazil. The ranking is of the magazine Você S/A and evaluates items such as conditions of the organizational environment, investments in training and qualification of people, and also technical issues which characterize a consistent and sustainable management.



In the general ranking, ZEN occupies one of the top 40 positions, placing it ahead of some large and renowned national and multinational corporations.

Among companies of the iron and steel industry, ZEN is **ranked 2nd**.

In addition to gaining an excellent ranking, the performance of ZEN is even more noticeable when reviewing the scores obtained by the company in several areas of the study.



## 150 BEST IN THE MAGAZINE VOCÊ S/A

### AREAS WHERE ZEN STANDS OUT IN THE DOMESTIC SCENARIO:

#### Career Management

The excellent performance in this topic places ZEN among the 30 best companies in Brazil, and confirms its commitment to the career of the employees by furthering constant opportunities of professional development and growth.

#### Training and Qualification

ZEN plans annual training based on the needs identified in the company strategy, and averages 25 thousand training hours per year.

#### Acknowledgement and Reward Management

The performance of ZEN in this topic proves the care and efficiency of the Corporation in evolving historically, its extreme care with its professionals and its processes of constant improvement.

#### Sustainability and Diversity

The employees acknowledge the investments in environmental conservation and campaigns involving the community, giving ZEN a 96.8% favorability rating, compared with 90.9% average of the other participants in the study.

## BUILDING MY FUTURE PROGRAM

### BELIEVING IN EDUCATION IS STAKING ON THE FUTURE

The Building My Future Program was implemented in 2013, aiming to enhance the professionals who are committed to their self-development and the development of the organization. The program encompasses employees, family members and the community.

🕒 25.000 hours  
👥 15.000 participations

In 2016, the Building My Future Program provided more than 20,000 hours of training for 15,000 participations. All the employees took part in the courses, with an average of 25.9 hours' training per employee/year.

The Building My Future Program is divided into two fronts:

**MULTIPLYING:** training executed by the employees themselves, who develop themes linked to the requirements of the company, enhancing knowledge, internal experience and optimizing resources.

**CLICK:** lectures, videos and seminars online with discussions and reflections contextualized for the reality of the company.



## ACKNOWLEDGEMENT MEETING

### THE VALUE OF SEEKING RESULTS

A modern and competitive company requires a team committed to, and focused upon results. Thus, ZEN encourages initiatives and recognizes those employees who stand out in the company as a source of inspiration for the others by their attitudes and behaviors which motivate the team and drive the growth of business.

This performance is acknowledged both by the executive board and the work colleagues by means of honor is paid during the Acknowledgement Meetings.

Since its implementation, 26 professionals have already been honor for the projects which they developed in their work areas, which helps the company to achieve its objectives.



## BIRTHDAY COFFEE

Aligned with the policy of recognizing its professionals, in 2016 the executive board of ZEN commemorated the birthdays of its coworkers by serving coffee in the company of colleagues, manufacturing director and the CEO. The goal is to utilize the special date to bring coworkers and managers together and establish a face-to-face communication channel.



## SAFETY, ENVIRONMENT AND CITIZENSHIP

### ENVIRONMENTAL PERFORMANCE INDEX

#### CLEANER AND MORE AWARE PRODUCTION

Working to prevent environmental impact, integrating the concept of sustainability with the production process, is a reality at ZEN. By means of the project Cleaner Production (P+L), implemented in 2014, the company has increased its efficiency in the use of raw materials and resources such as water, electricity, soluble oil, hydraulic oil, natural gas and solid residue.

In 2016, ZEN set a new record in reducing the generation of contaminated residue and the consumption of the main product resources, attaining **7% improvement** as compared to 2015.



The improvements made in the factory, in 2016, to reduce the indicators which compose the IDA goal, include the following:



Installation of translucent tiles, LED lamps and high yield motors. Elimination of electrical leaks and improvement in the management of disconnecting and reconnecting the machines, contributed to reducing the consumption of electricity.



Expansion of the system of capturing rainwater for use in the bathrooms.



Reduction in the consumption of oil in the machines through improvements in the treatment system.



Waste disposal by co-processing.





## ENVIRONMENT AND COMMUNITY

The commitment to sustainability encourages ZEN to act seriously in the areas of social and environmental responsibility. Countless actions and programs prove its commitment to improving the quality of life of the coworkers and the community.

Special dates, such as Water Day, Tree Day and World Environment Day, are viewed as an opportunity to encourage awareness and care of nature, but several other actions are implemented throughout the year to reinforce this commitment of the company. Among the events held in 2016, the following stand out:

### INTERNAL WEEK OF PREVENTION OF WORK ACCIDENTS AND ENVIRONMENT (SIPATMA)

Every year, ZEN organizes the Internal Week of Prevention of Work Accidents and Environment (SIPATMA). More than a legal requirement, the event is a special moment to discuss issues like safe behavior, health and environment. In addition to involving the factory employees, ZEN also furthers Sipatinha - an event directed at the children and family members of the professionals.

In 2016, 60 children took part in the activities of SIPATINHA which included a visit to the factory and lectures about environmental awareness and safety on the Internet.







## 2ND ACTION MOVEMENT

The 2nd Action Movement is an event that occurs every June 5th, and is sponsored by ZEN and SESC Brusque in order to encourage people's awareness for responsibility in environmental conservation, through simple day-to-day behavioral change. The activities include exhibitions about selective collection, educational games, alternatives for reusing water, vertical kitchen garden, etc.

## CLEANING OF THE RIVER ITAJAÍ-MIRIM

In partnership with Brusque Town Hall, employees of ZEN and the community took part in cleaning the River Itajaí-Mirim, which is responsible for 70% of the water supply to Brusque municipality, the town where Zen is headquartered. In all, five tons of garbage were collected from the river banks and disposed of in a landfill.

## SAFETY

### INVESTMENT WHICH GENERATES RESULT

In order to attain "Zero Accidents", in addition to investing in safe equipment, Zen also invests in changing the behavior of its employees by focusing upon eliminating and preventing accidents.

In 2016, the company made improvements in the work environment, provided lectures and training about safety standards, invested in a fire prevention system, and acquired new machines.





## AWARDS AND ACKNOWLEDGEMENT IN 2016



### Santa Catarina Award for Education

In 2016, ZEN won the Santa Catarina Award for Education, in the category Corporate Education, for the development of the Building My Future Program. The objective of the award, granted by FIESC (Federation of Industries of Santa Catarina State), is to acknowledge the initiatives of several sectors of the economy regarding the development of projects and actions which focus upon raising the degree of schooling and professional qualification of employees.

### Human Being Award 2016

For the third straight year, ZEN won the regional award of the Brazilian Association of Human Resources (ABRH-SC). In 2016, the company was recognized in two categories: in the People Management category, by the ZEN Profit Sharing Program, and in the Socioenvironmental category, with the project "All for environmental conservation".



### PZPR - ZEN Profit Sharing Program

Implemented in 1996, PZPR was created to encourage the employees to attain extraordinary results and promote personal development. The program has strategies to enhance and acknowledge collective and individual results, by means of attaining goals.



### All for environmental conservation

The commitment of the ZEN employees and the community to environmental conservation reflects our concern for sustainability. Since 2009, ZEN has developed educational programs, such as the furthering of art and photographic exhibitions for the employees and contractors, and has also developed partnerships with schools and the community, which have already reached over 2,000 adults and children.





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