

# Our practices with innovation

## Lean Philosophy

Lean is a management philosophy whose essence is the ability to eliminate waste continuously and solve problems in a systematic way, achieving increasingly better results.

Several times we talk about Lean at Copag. In an interview with our COO Gelber Abe, he told that he had his first learnings on this theme in his father's workshop, where he was instructed to take only what he would use and always put the tool back in place, some of the principles of 5S.

At Copag we perform the 5S audit for all areas, encouraging Lean Thinking, and many results can be

seen in our daily lives in the factory and in the office.

The year 2020 began with a major innovation for Copag: the decision to manufacture plastic toys. For this purpose, the Operational Excellence department, together with the PD&E, set up a squad to develop a completely new production line. New facilities, equipment and processes were put in place, which required new knowledge and brought many challenges, but the result was certainly incredible.

Another major challenge was to change the visual management of strategic points of the company to adapt to the new visual identity. For this, employees from different departments got together for a weekend, surprising everyone the following Monday. The change was a huge success and it was very gratifying to see the general enthusiasm!

## Projects and Continuous Improvement (KAIZENS)

In 2020 many things may have changed, but our search for Operational Excellence has remained the same. Due to the pandemic and the need to avoid agglomerations, we were unable to hold the CSW week, however, we carried out several actions to preserve the health of our employees, such as:

Signs on tables to maintain social distancing;

Identification of the number of people per room;

Installation of acrylic display in the People and Management and Financial departments and in the Cafeteria to increase security;

Use of information placards on how to avoid Covid-19.

All the work carried out with the teams, to disseminate the CSW Program and Lean concepts, brought effective gains to Copag, increasing productivity and reducing considerable losses during processes, which resulted in fewer rework and scrap.

During 2020, 37 projects were carried out in the most diverse sectors of the company. Administrative teams attended and carried out some of them, proving the importance of the Lean Office (application of the Lean philosophy within the offices) in our daily lives.

Our employees are the greatest sources of ideas and initiatives for the projects that brought great cost savings to Copag! Below is a photo taken at one of the Kaizen events held with our factory team, showing involvement and engagement with the CSW Program:



### Some of the highlights of the year were:

Development of tool to organize the first sheets of the pallet, preventing slips and reducing the movement of printing aids.

Development of FlowRack to feed inputs from the LidBox assembly line.

Improvement of the type of games in the lines “Me-

stre da Mímica” and “Tá Pensando o Quê?”, reducing production costs by 3.88%.

Zero Defects - Reduction of losses due to Accomplishment/Setup through a control chart, reducing by 50% the number of sheets required.

Materials area in the Warehouse for analysis by the supplier due to quality problems.

Creation of equipment to unlock the neck of plastic toys that have been improperly sealed, reducing 14% of losses.

62% increase in productivity through the study of time and methods in the product Lata Pokémon - Cardboard.

Decrease of varnish consumption using Cyrel, reducing the area of application of varnish on the printing sheet by 24% on average, and reducing by 88.6 hours the time spent on this activity per year.

Glove Case - Improvement in the method of finish-

ing the product and balancing the line.

Increased productivity in the production line of Ziper 139 cartridge, through the analysis of time and methods, an increase of 20% man/hour.

Increased productivity in the production line of Lata Pokébola through the analysis of time and methods.

## Ideas Program



The Ideas Program (PDI) has increasingly progressed within Copag. Ideas and improvements are implemented by our talents, and everyone actively participates in projects aimed at sustainability and innovation.

This program is part of a long and beautiful journey started in 2014. In 2019, the headquarters in Manaus reached record participation of all its employees, with several projects aimed at reduction of costs, continuous improvement and increased productivity.

In 2020, despite the pandemic scenario, the 7th cycle of the Program of Ideas continued with the same engagement and received several innovative and sustainable projects, where the best proposals were highlighted and rewarded.

Year after year, increasingly transformative ideas arise, and we realize that during the cycles our employees show maturity, professionalism, and are ready to make a difference, endeavoring efforts to reach the limits of what is possible.



# Meet the 2020 winners

## Category 3 Ranking:

### 1st place:



**Employee: Iago Pantoja**

Industry: Green Line

Objective: Productivity increase (dolls head assembly station)

Idea: Removal of manual presses to avoid defects of dented heads during the assembly process.

Total amount of the prize: R\$ 3,000.00

### 2nd place:



**Employees: Hildebrando Ferreira, Railson Cativo and Thales Augusto**

Industry: Green Line

Objective: Reduction of plastic use

Idea: Packaging Cartridge with cardboard Hang Tab and without using Shrink.

Total amount of the bonus: R\$ 500.00



### 3rd place:



**Employee: Cristiane Sales**

Industry: PCP

Objective: Control of Losses

Idea: Control of losses of material in the process to mitigate errors in launching via Metrics and FMNC.

Total amount of the prize: R\$ 300.00

## Category 2 Ranking:

### 1st place:



**Employees: Robson Kennedy and Reginaldo Bastos**

Industry: Printing

Objective: Increase in productivity

Idea: Adaptation of pallet for organization of sheets. Keep the organization in the process of separating the sheets of losses/bags and a good visual management.

Total amount of the prize: R\$ 800.00



## 2nd place:



**Employee: Iderley Almeida**

Industry: Printing

Objective: Increase in productivity

Idea: Adaptation of a paint mixer to speed up the paint preparation process.

Total amount of the prize: R\$ 500.00

## 3rd place:



**Employees: Paulo Bruno, Tercyo Silva and Iderley Almeida**

Industry: Printing

Objective: Increase in productivity

Idea: Optimize setup time and organization in visual management by creating a tool board.

Total amount of the prize: R\$ 300.00

