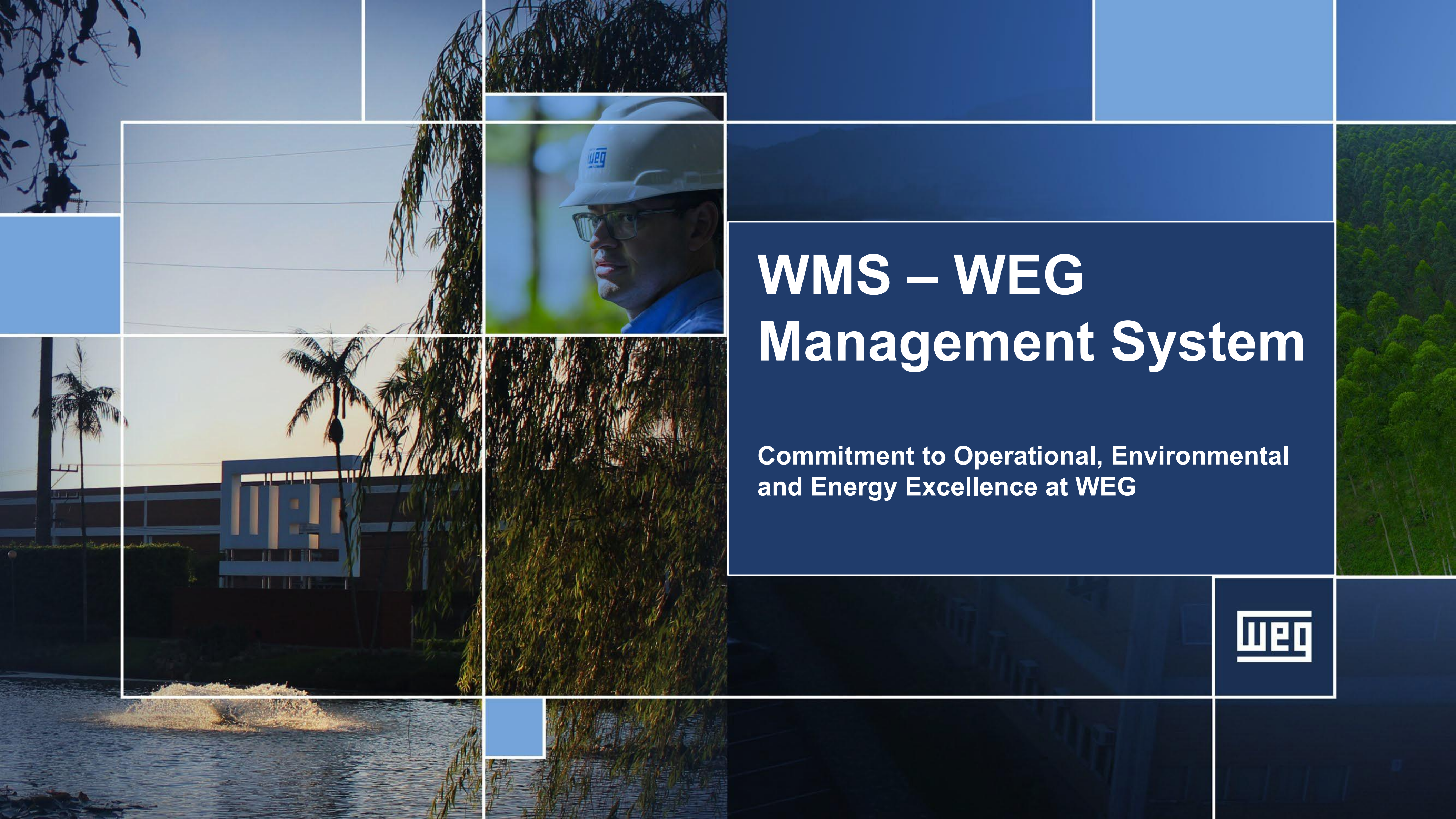




WMS – WEG Management System

Commitment to Operational, Environmental
and Energy Excellence at WEG





WMS – WEG MANAGEMENT SYSTEM

WEG has a continuous improvement system called WMS. This system's main function is to identify and reduce the most varied losses in all processes.

The WMS as a management system has evolved "our way of doing things", from the creation of a routine management adapted to WEG (applied to production, offices and suppliers), to the definition of specific teams by areas to search for disruptive solutions on the various work fronts (safety, maintenance, costs, environment, energy, etc.).

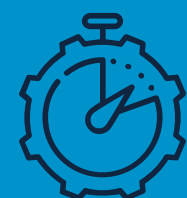
With WEG's significant growth, verticalization and global presence, the creation of a single system to provide standardization and transparency of the results of the numerous processes and production plants was a necessity. However, during the development of WEG's solutions for these conditions, the objectives evolved with the management system and currently aim to:

- Increase the engagement of all hierarchical levels of the organization for continuous improvement;
- Increase the productivity of all processes (manufacturing and administrative) in a sustainable way;
- Integrate all areas of the Company in common strategic objectives;
- Direct projects systemically through the prioritization matrices (safety, quality, environment and costs);
- Eliminate waste along the value chain, from the supplier to the end customer;

In this way, the system aims to act as a sustainable governance of continuous improvement, developing tools and methods capable of meeting the needs of the organization to enhance its results.

OBJECTIVE

GREATER COMPETITIVENESS



Reduce lead time



Improve visibility into unit performance.



Improve *time-to-market*



Improve the entire supply chain.



Increase the company's global management



Exceed the expectations of customers.



WMS IMPLEMENTATION

The implementation of WMS Manufacturing began in the manufacturing areas and production support teams, structured around three fronts: basic stability; loss reduction; systemic improvement.



On the basic stability front, the system reinforces the importance of 5S and the definition of standardized processes, in addition to establishing a routine management method applicable to all areas, which standardized performance metrics, scaling from the operational level up to senior management.

Once good levels of basic stability are achieved, we pursue the optimization of our processes. To this end, on the Loss Reduction front, we use 4 drivers: Safety, Quality, Environment and Costs. This approach targets short- and medium-term results.

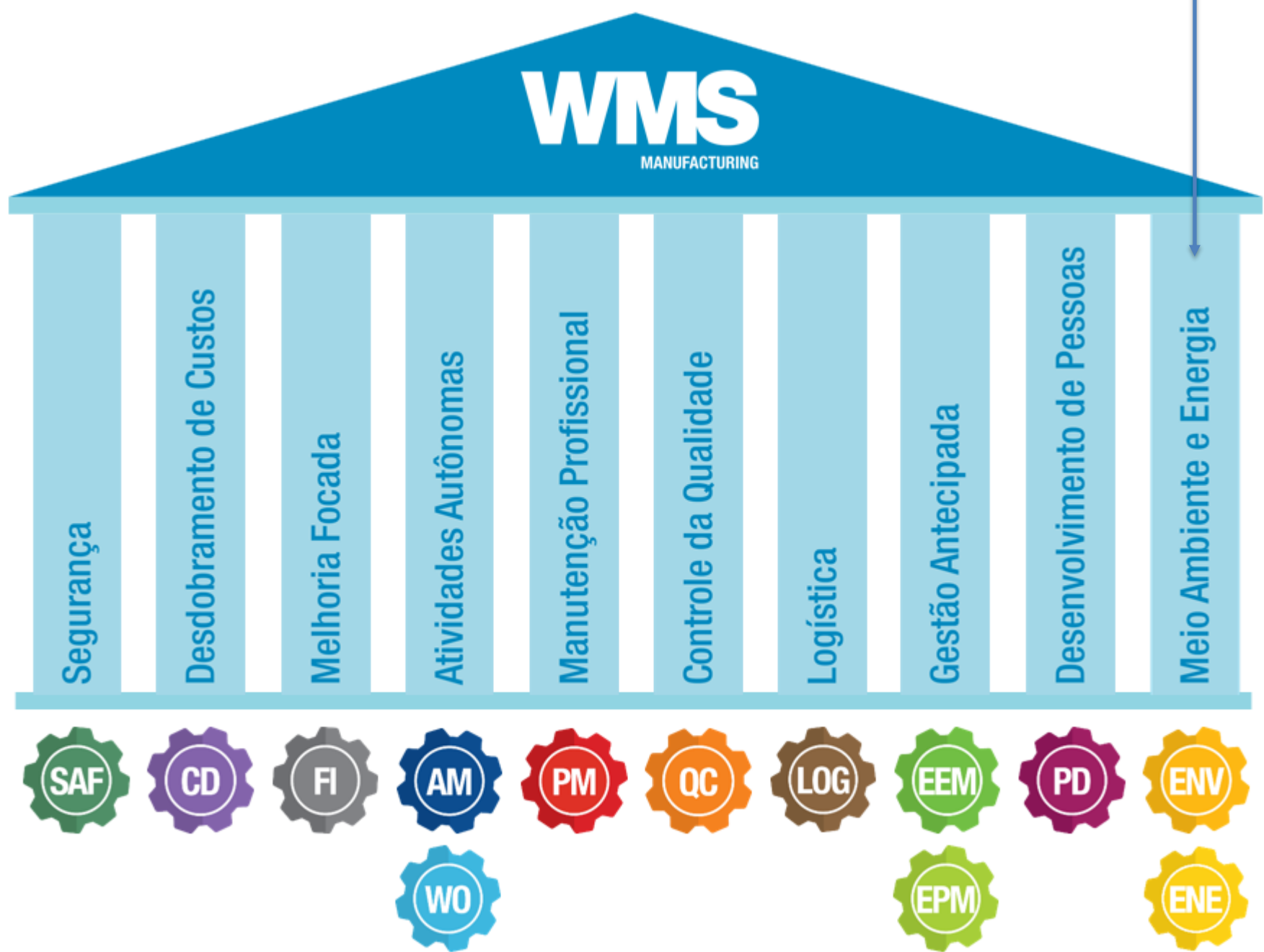
Stages

The execution of the Loss Reduction front goes through the steps below for each of the 4 drivers (Safety, Quality, Environment and Costs) in annual / semiannual cycles:

-  Mapping/auditing of internal processes in search of opportunities and identification of losses;
-  Definition of goals shared among areas;
-  Prioritization of opportunities and selection of projects;
-  Internal follow-up by area and with the Board of Directors;
-  Validation of quantitative / qualitative results and monitoring of targets with the Committees.



PILLARS



In parallel with Loss Reduction, WMS works with multidisciplinary teams that seek to evolve the work system on each of the fronts: safety, quality, cost, kaizen, 5S, workstation organization, maintenance, logistics, people, engineering systems, environment and energy. These teams are made up of employees from different areas and follow a standardized methodology to evolve around their main objectives: Zero accidents, zero scrap, zero emissions, zero delays, zero waste, zero breakdowns, zero absenteeism, among others.



Meio Ambiente e Energia

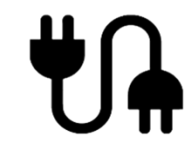
The main objective of the Environment and Energy pillar is **zero impact of WEG Group operations on the Environment.**



Effectively integrate environmental practices and policies into the company's operations;



Reduce the environmental impact of operations;



Eliminate losses and waste related to environmental, energy and natural resources, promoting sustainability.



Build capacity and train employees in energy efficiency and environmental aspects, to raise awareness about reducing energy consumption and environmental impacts.



PILLAR METHODOLOGY

The methodology of the Environment and Energy Pillar is initially structured in three steps. To certify the current step and advance to the next, the pillar team conducts certification audits in the areas under implementation.

Step 1 – Mapping and diagnosis of the current situation

OBJECTIVE:

- Mapping of the area's consumables and their environmental impacts, and whether the area complies with environmental requirements and operational standards.

Step 2 – Data analysis and control

OBJECTIVE:

- Achieve maturity in the critical analysis of the equipment KPIs (Key Performance Indicators), identify anomalies and calculate the environmental losses and waste of the area

Step 3 – Execute loss reduction actions

OBJECTIVE:

- Critically analyze the losses and waste mapped based on the results of the energy, waste and environmental audits from the previous steps, prioritizing the main losses and waste and solving the related problems through the implementation of technically and economically feasible projects.

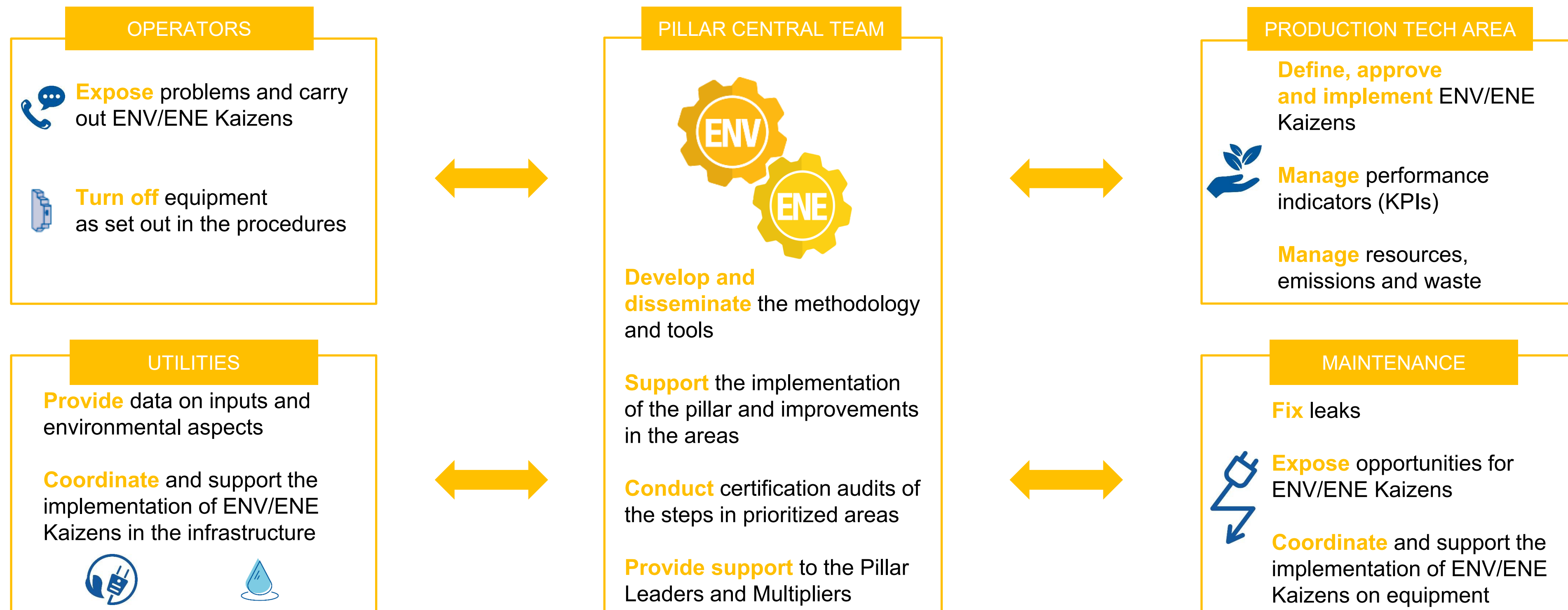
Main activities per step:





TRAINING AND UPSKILLING

The central team of the Environment and Energy Pillar is responsible for developing the methodology and for training, raising awareness and building the capacity of all areas involved, ensuring the correct execution of their responsibilities and enhancing the results of each application of the work methods to solve problems related to Environment and Energy.





EXAMPLES OF IMPLEMENTED PROJECTS

Installation of a 3 MWp solar photovoltaic system at the WCZ unit (China)

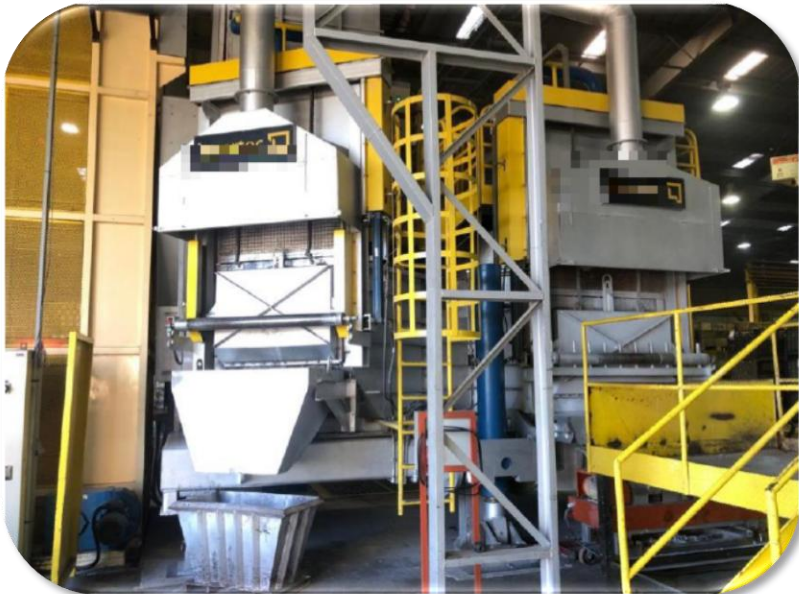


Solar panels installed on the WCZ rooftops

Project Description

Through the implementation of a 3 MWp photovoltaic system, the WCZ unit began generating part of the electricity consumed in its operations from a renewable source. The project resulted in an annual reduction of approximately 1,311 tCO₂e, in addition to lower electricity costs.

Optimization of the gas melting station by reducing thermal losses at WLI (Brazil)



Melting station at the Linhares plant.

Project Description

An intermediate cover and a damper were installed at the chimney outlet of the gas melting station, reducing the hot gas outlet area by approximately 80%. The improvement decreased the thermal losses of the process and provided an annual reduction of 329 tCO₂e.

Switch to renewable electricity supply at Pulverlux (Argentina)



Facade of the WEG Tintas Pulverlux plant in Argentina

Project Description

The Pulverlux unit switched 100% of its electricity supply to a certified renewable source, reducing indirect emissions associated with electricity consumption. The initiative resulted in an annual reduction of approximately 223 tCO₂e.



EXAMPLES OF IMPLEMENTED PROJECTS

Electrification of ladle heating at the Aluminum Injection area (Brazil)



Electric ladle heater at the Aluminum Injection area

Project Description

The Aluminum Injection area started using an electric system to heat the ladles that transport liquid aluminum, replacing natural gas consumption. The change significantly reduced the department's natural gas consumption, resulting in an annual reduction of approximately 181 tCO₂e.

Electrification of the cast component washer at WMX (Mexico)



Side view of the component washer, with motor frames in front

Project Description

The heating system of the foundry parts washer was converted from LPG to electricity through the installation of electric immersion heaters, eliminating the use of fossil fuel for water heating. The project resulted in an annual reduction of approximately 123 tCO₂e.

Replacement of the anti-corrosion treatment process for rotors at WCZ (China)



Rotors at the WCZ plant, China.

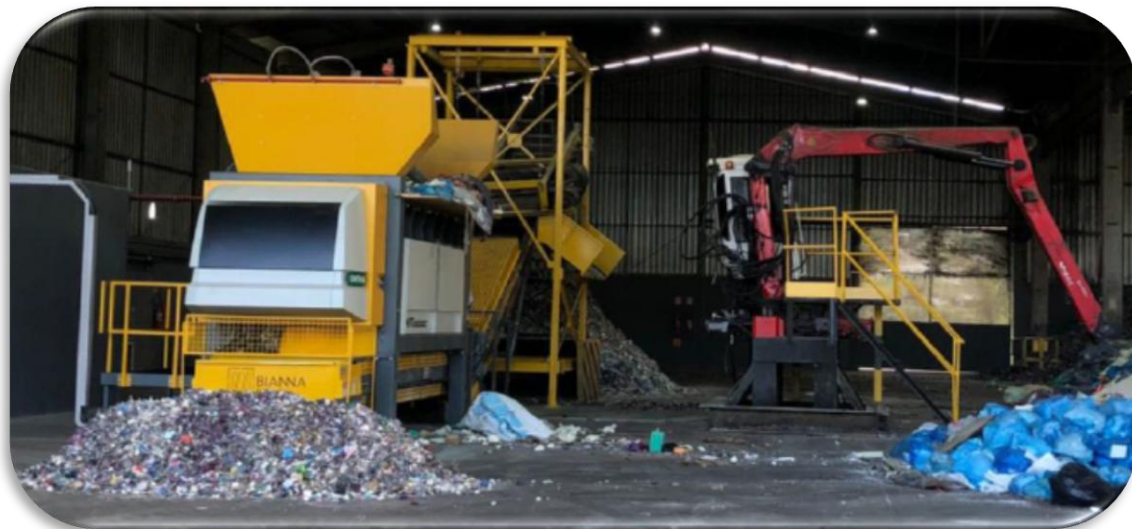
Project Description

The WCZ unit (China) implemented equipment that changed the anti-corrosion treatment process for rotors, significantly reducing electricity consumption, operating costs and operational complexity. The initiative resulted in an annual reduction of approximately 129 tCO₂e.



EXAMPLES OF IMPLEMENTED PROJECTS

Change of technology for the disposal of Class I and II waste (Brazil)



Waste blending area at the partner company

Project Description

Some Class I and II industrial waste previously sent to industrial landfills began to be sent for blending and co-processing with energy recovery, used as an alternative fuel in the cement industry, reducing landfill disposal by approximately 360 tonnes per year.

Waste reduction in the plastic injection process (Brazil)



Injection runner waste before the improvement

Project Description

The injection mold for the socket cover part was optimized by changing the geometry of the injection runners. The initiative reduced the volume of resin used in the process and decreased plastic scrap generation by 4.8%, contributing to lower raw material consumption and waste generation

Automated control of water intake at the Filtration Station (Brazil)



Ultrasonic flow meter installed in the process

Project Description

Implementation of an automated system to control water make-up at the filtration station of the Casting Machining area. Using an ultrasonic water meter, a PLC and an electropneumatic valve, the volume of water added to the process was limited, eliminating waste from manual interventions and 510 L/month of cutting oil.



INVESTMENTS IN IMPROVEMENT AND LOSS REDUCTION

Through these work fronts, projects with the greatest cost reductions and lowest investments are defined each year. The table below shows the investments made between 2021 and 2024 in energy and waste reduction projects managed by the Environment and Energy Pillar at the Headquarters Industrial Park:

INVESTMENTS	2021	2022	2023	2024	2025
Total	R\$ 5,001,020	R\$ 3,523,150	R\$ 1,783,584	R\$ 2,148,750	R\$ 9,335,179

SAVINGS

The WMS Environment Pillar projects deliver a return on their investments. Below is the return on energy and waste reduction projects over recent years at the Headquarters Industrial Park:

GAINS	2021	2022	2023	2024	2025
Total	R\$ 2,673,170	R\$ 2,759,590	R\$ 2,991,027	R\$ 2,496,491	R\$ 2,478,908



EXAMPLES OF ENERGY EFFICIENCY TARGETS

2025



Consumption $\leq$ 1.65 kWh/PU

Result: 1.63 ✓

Dept. Manufacturing

Consumption $\leq$ 1.56 kWh/h

Result: 1.47 ✓

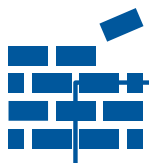
Sect. Maintenance

Consumption $\leq$ 10.00 kWh/PU

Result: 8.00 ✓

Dept. Electronics
Manufacturing

2026



Consumption $\leq$ 33,258 Nm³/mo*

In progress

Dept. Metallurgical

Consumption $\leq$ 0.70 kWh/PU

In progress

Dept. Manufacturing

Consumption $\leq$ 0.92 kWh/PU

In progress

Dept. Manufacturing

PU: Production Unit, varies by production department

* Dry natural gas consumption.

Energy efficiency targets are generally structured on intensity metrics such as energy consumption per production unit (unit, power, tonne, liter...) characteristic of the manufactured product.

Each department has a different target configuration, given the particularities of each process and manufactured portfolio.

Each year, these targets become progressively more challenging, reflecting the ongoing commitment to operational excellence and the optimization of production processes.



Energy efficiency is monitored through audits carried out in the areas, with the aim of identifying deviations, losses and improvement opportunities related to energy use. These checks include inspections conducted by the unit's environmental team, which assess compliance with operational controls and the good practices established by the Environmental and Energy Management System. In addition to environmental inspections, the 5S Program includes audits carried out by employees in the areas, which also enable the identification of situations related to energy waste and improvement opportunities.

In addition, in their daily routine, employees can record anomalies and improvement opportunities using WMS tags. This system allows any employee to identify and flag situations related to improper energy use, losses or operational deviations, contributing to continuous action on energy performance.

CONSUMO DE GÁS NATURAL - FORNO A GÁS

Semanas	Consumo GN antes (kWh/m³)	Consumo GN depois (kWh/m³)
7	1650	0
8	1950	0
9	2200	0
10	1850	0
11	2400	0
12	2400	0
13	2050	0
14	1850	0
15	2000	0
16	2150	0
17	2250	0
18	2200	0
19	2300	0
20	2100	0
21	1900	0
22	2150	0
23	1950	0
24	2300	0
25	1900	0
26	2100	0
27	1950	0
28	1950	0
29	2150	0
30	1850	0
31	2200	0
32	2000	0
33	2550	0
34	2000	0
35	2050	0
36	1550	0
37	1750	0
38	1800	0
39	1550	0
40	1750	0

E.g. Natural Gas

WEG IDENTIFICAÇÃO E TRATATIVA DE NÃO CONFORMIDADE E OPORTUNIDADE DE MELHORIA - SI... WPM-1184 PT

BR-SC-JGS-WEL-10-S1:SEC Proj., Edificacoes e Infraestrutura Rev. 09

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graph LR
    Entrada([ENTRADA DA ATIVIDADE]) --> T1[1. DETECTAR EVENTO]
    T1 --> T2[2. REGISTRAR E CLASSIFICAR EVENTOS]
    T2 --> T3[3. TRATAR EVENTO]
    T3 --> T4[4. MONITORAR AÇÕES]
    T4 --> T5[5. ENCERRAR EVENTO]
    T5 --> Saida([SAÍDA DA ATIVIDADE])
    T2 -.-> R[Registros]
  
```

LEGENDA:

- ENTRADAS E SAÍDAS
- TAREFAS
- Registros

3. GENERALIDADES

4.1. Os critérios descritos nesta norma são aplicáveis ao Sistema de Gestão Ambiental e Sistema de Gestão de Energia.

4.2. Esta norma também se aplica ao procedimento de identificação de anomalias de meio ambiente e energia, detectados pelos departamentos e tratados de acordo com o procedimento de gerenciamento de Etiquetas WMS.

[illegible]



ISO 50001

In the areas certified to ISO 50001, WEG conducts internal audits at planned intervals to assess compliance with requirements related to energy management and performance, in accordance with internal procedures, standards and targets. The audits are based on data, operational evidence and field checks, allowing the conformity of processes to be assessed and improvement opportunities to be identified.

The areas certified to ISO 50001 can be found on WEG's website:





www.weg.net