

PT. WAHANA DUTA JAYA RUCIKA NGORO PLANT

Company Profile



TOTAL PRODUCTIVE MAINTENANCE

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TOTAL PRODUCTIVE MAINTENANCE

COMPANY PROFILE

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4. Key of Manufacturing Excellence

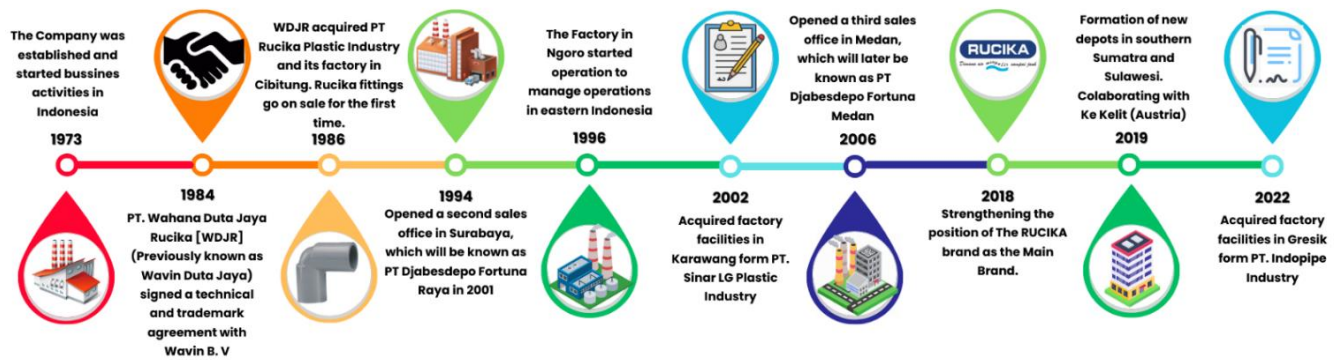
5. Achievement Record

1. Company, Plant/Factory Profile

1.1 Company Profile

1.1.1 History of Wahana Duta Jaya Rucika

PT. Wahana Duta Jaya Rucika (PT. WDJR), formerly known as PT. Wavin Duta Jaya has been established since 1973. All operations under Wavin BV Holland's license, a top global PVC pipe producer with facilities across Europe. With 50 years' experience, we maintain consistent excellence in production quality.



PT. WDJR has 5 plants located in :

1. Cibitung, Karawang, and Lemah Abang – West Java;
2. Ngoro and Gresik – East Java



1.1.2 Company Value, Vision and Mission

Growing to become a pioneer, is a series of extraordinary journeys from how we build the trust of Indonesian people. And this is our company value to grow our vision and enlarge our missions:

INSPIRED TO EXCEED



Exemplary Leadership

Leading by example in an attitude of humility, sincerity and integrity to achieve optimal results.



Excellence

Always looking for ways to exceed existing standards with continuous improvement and innovation.



Dedication to Market

Sensitive to market intuition that can anticipate and meet customer expectations.



Continuing Partnership

Forging long-term mutually beneficial relationships with business partners to build a trusted company image.



Empowerment

Empowerment by building human resources, systems and governance for business continuity.

VISION

“To be best Producer of Plastic Pipe System in Indonesia that improves the quality of life of communities through effective water management”.

MISSION

- Producing quality plastic pipe system and solutions for customer through product and service excellence
- Building longterm, mutually-beneficial relationship with business partners
- Creating reliable organization capabilities and highly dedicated people
- Applying good corporate governance and business ethics to maintain business sustainability

1.1.3 Innovation

We strive for global innovation, developing new products annually as part of our 'TOTAL SOLUTION' approach. Through 'COLLABOACTION,' we collaborate with trusted foreign partners to strengthen our commitment to comprehensive piping system solutions.



"MAEZAWA, a renowned Japanese company, leads in piping systems, known for innovating thousands of products."



RUCIKA partnered with Austria's KE KELIT, innovating specialized piping systems for daily needs like hot and cold pressurized water."

HIGHEST APPRECIATION FOR AN INNOVATION



Established community trust drives us. Maintaining awards like Top Brand since 2011 and Digital Popular Brand since 2016 showcases our dedication. This fuels our commitment to innovation, superior product quality, and continual growth.

CERTIFICATION FOR REGULATION COMPLIANCE

PT WDJR achieved certifications for regulation compliance regarding management systems of quality, environment, safety, and product.



Quality Management System
(ISO 9001:2015)

Certificate No: JKT6009785



Safety Management System
(SMK3 & ISO 45001)

REG.SMK3.2018.SUC.SK-866

CERT. NO. OSH 01977



Environment Management System
(ISO 14001)

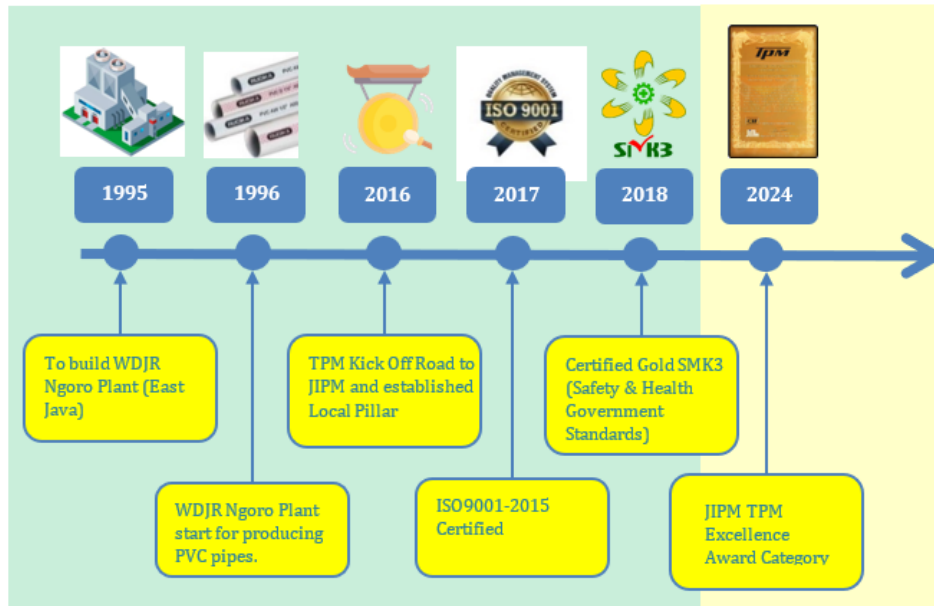
CERT. NO. EMS 00307



Green Product

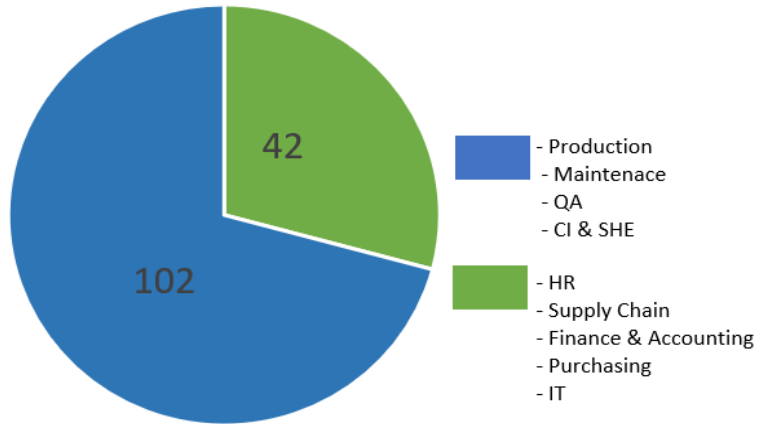
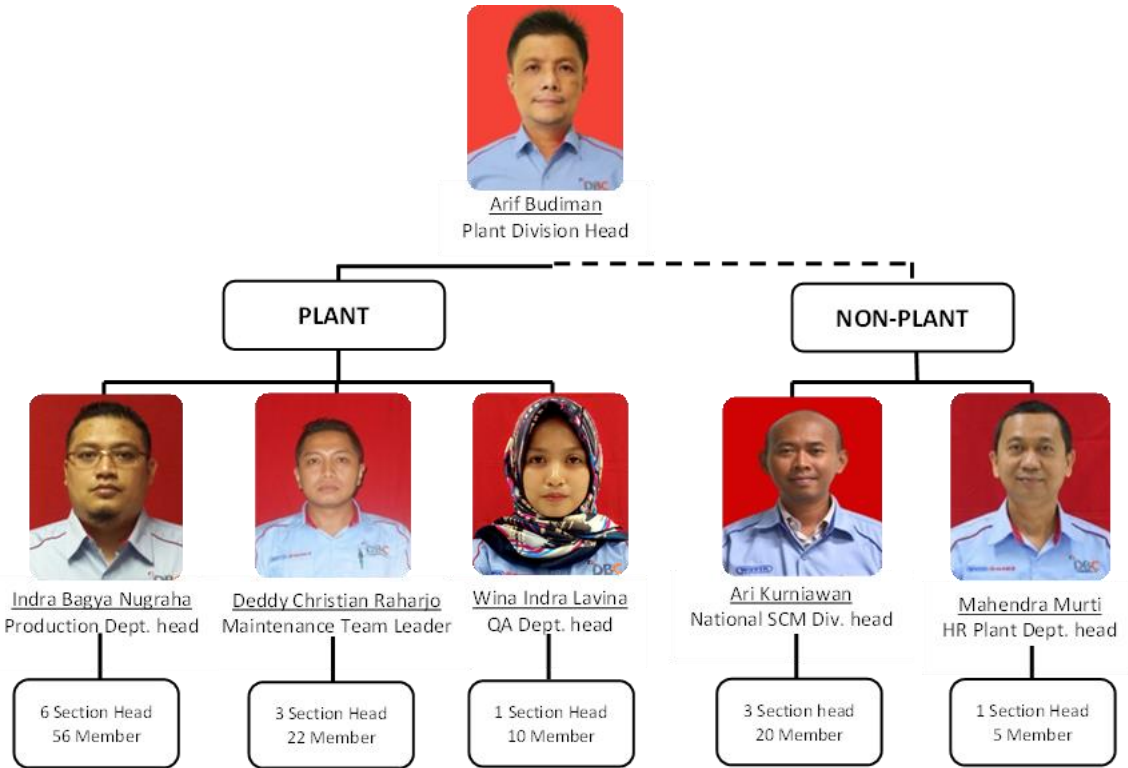
1.2 Plant Overview

1.2.1 Brief History



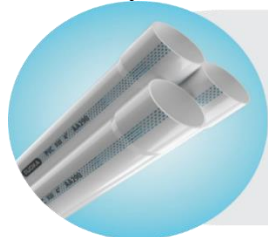
- Foundation & Commencement:
 - Built in 1995, operational in 1996 for eastern Indonesia's pipe market.
 - Initial setup: 4 extruder lines, 2 manual mixers
- Current Updates:
 - 18 extruder lines, 2 automatic mixers
 - Production capacity: 8.5 tons/hour

1.2.2 Organization Structure PT WDJR Ngoro Plant



1.2.3 Main Product PT WDJR Ngoro Plant

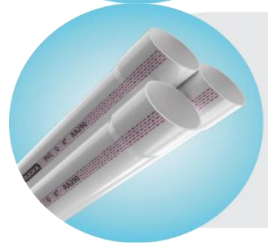
RUCIKA STANDARD: A uPVC pipe designed for pressurized and sewer systems. Made with non-lead Calcium Zinc stabilizers, it offers corrosion resistance, strength, lightness, easy maintenance, and environmental friendly product lines. Manufactured to meet JIS and ISO standards, certified by ISO 9001:2015 for quality management.



RUCIKA Standard

- AW class-

AW class RUCIKA STANDARD PVC pipe, for pressurized clean water up to a working pressure of 10 kg/cm² with 14 different diameter sizes from 1/2" to 12".



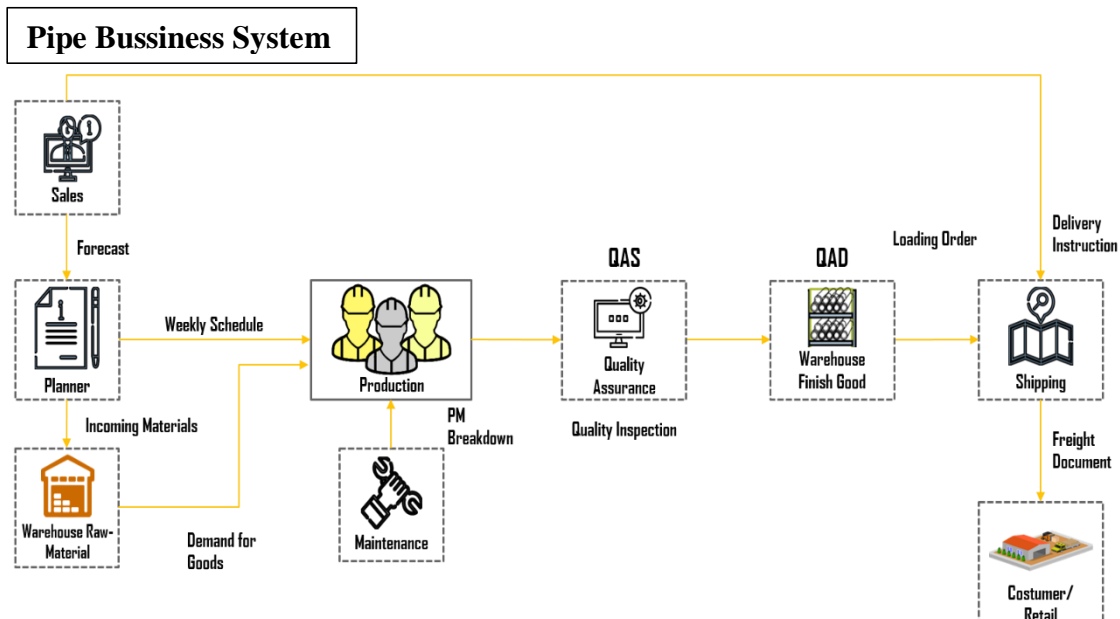
RUCIKA Standard

- D class-

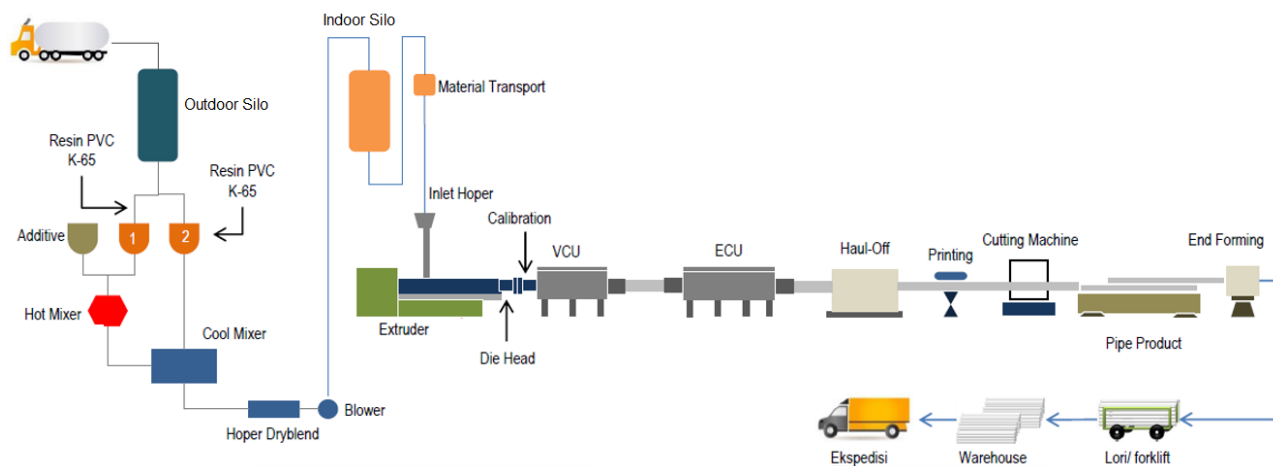
D class RUCIKA STANDARD PVC pipe, for drains and waste with 11 different diameter sizes from 1-1/4" to 12".

1.2.4 PT WDJR Ngoro Plant Production System

Currently, PT WDJR Ngoro Plant has World-Class production facilities with production capacity to fulfill retail market demand.



Flow Production Process

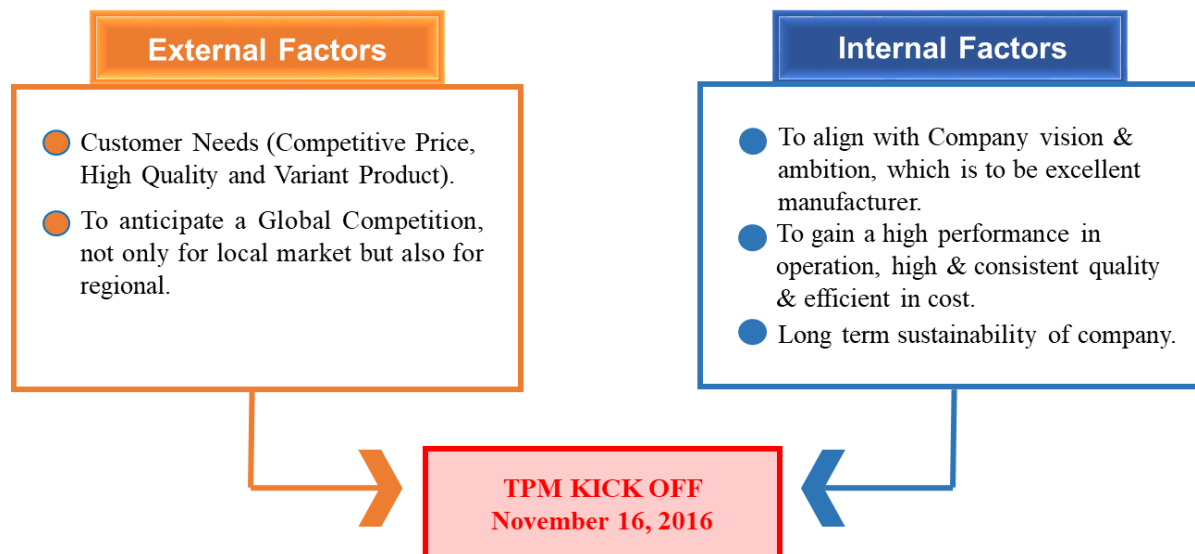


2. MILESTONE ON THE JOURNEY OF MANUFACTURING EXCELLENCE

2.1 Why Choose TPM

Along its journey in the current business environment, PT. WDJR faces several challenges from both external and internal. Therefore, PT WDJR has committed to being a World Class Company to keep the company sustainability in the future.

To achieve our goal to be a World Class Manufacturing Company in Quality, Customer Service & Cost PT WDJR need to implement a proven system, which is TPM.

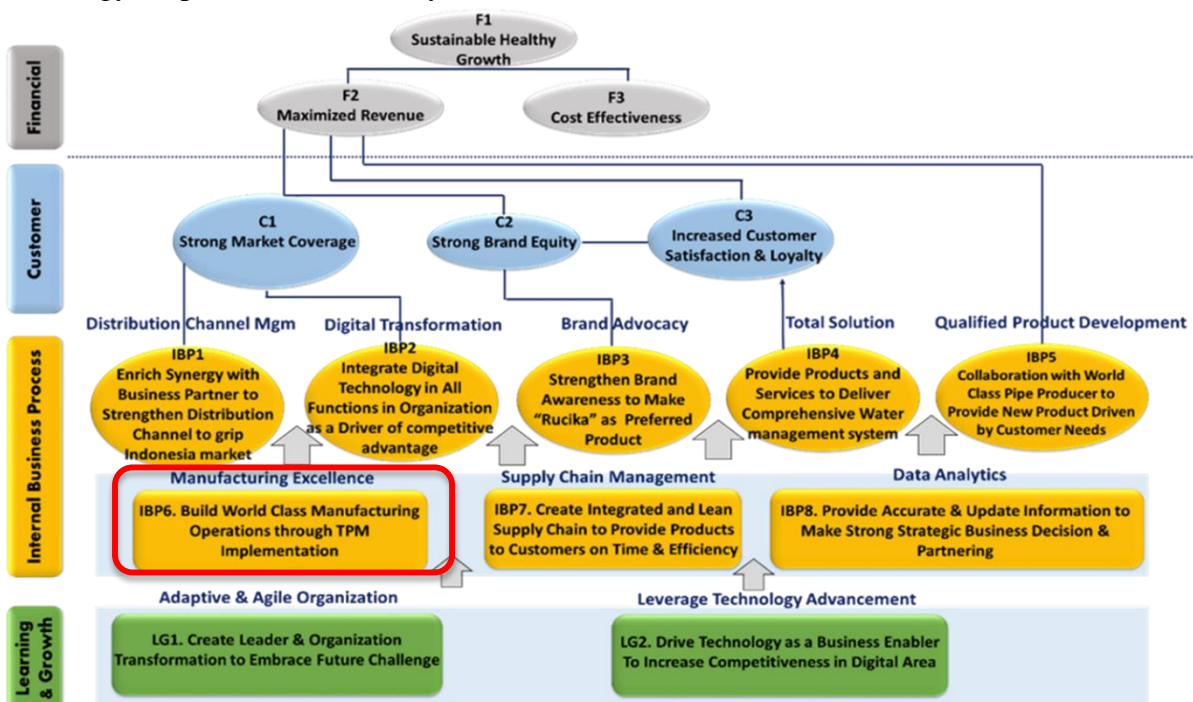




In the Company Strategic Framework, Management has a strongly believe that Manufacturing Excellence become a key foundation to achieve the Vision of the Company. Therefore, Management commits to implementing TPM as a way of working in Manufacturing.

2.1.1 Company Strategy Map

Implementing the Strategic Framework, Management maps its strategy in a Balanced Scorecard Strategy Maps which is annually reviewed.



Aligning with company vision PT WDJR has developed TPM policies as management commitment adopting the values of TPM within manufacturing operations.



TPM POLICIES



- 1. PT Wahana Duta Jaya Rucika implements TPM to support company's vision to grow and sustain long term business**
- 2. TPM is our way to increase efficiency, quality performance, machine performance, productivity performance and other efficiencies**
- 3. TPM is carried out in all plants and involves all employee**
- 4. Strongly integrate all TPM pillars with functional division to attack losses and improve performance**

Sarjuni Rahmat
 Chief of Supply Chain &
 Operational Excellence Officer

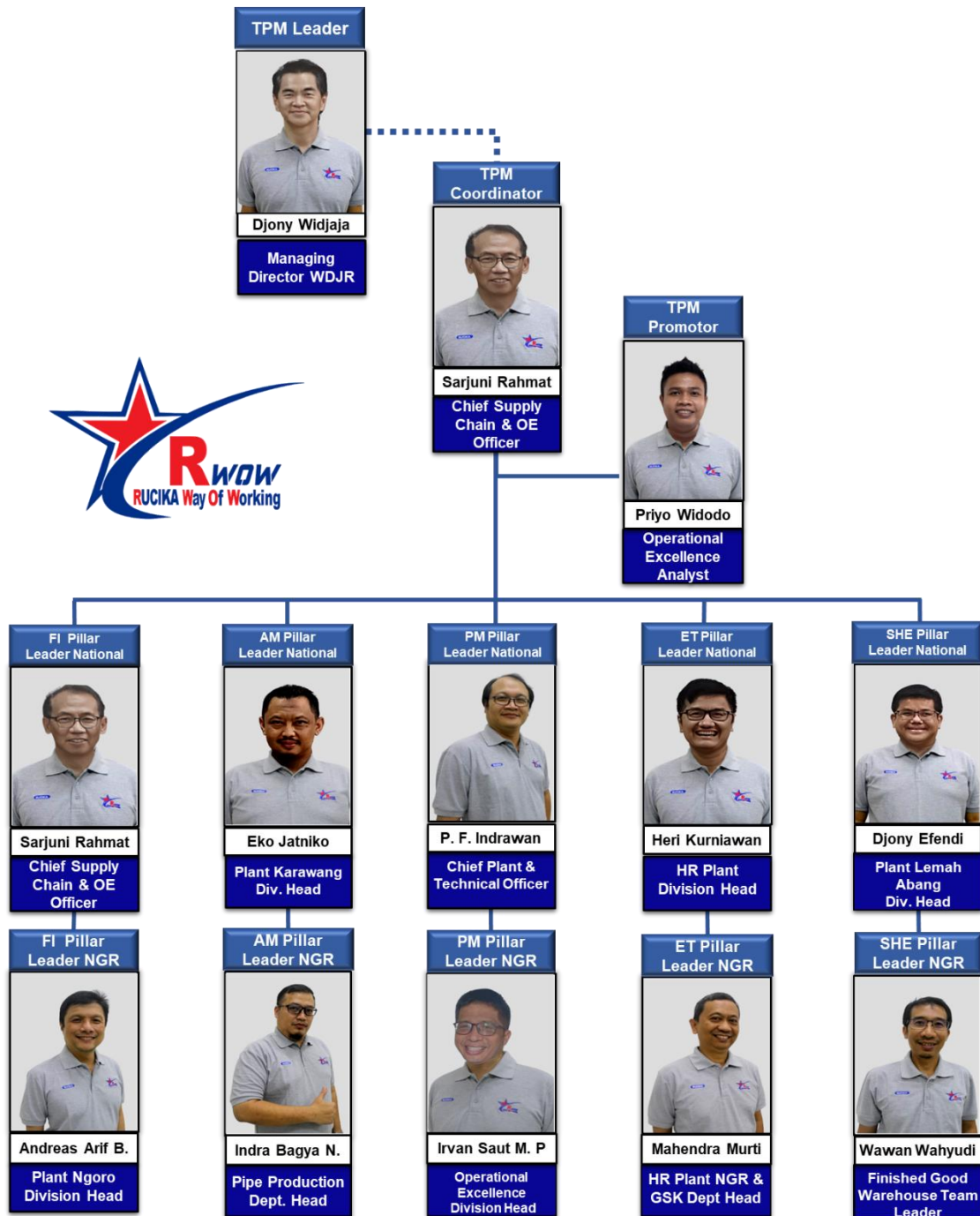
TPM was introduced in 2016 as an effort to reduce loss and to increase efficiency and profitability. The first implemented pillars were Autonomous Maintenance and Planned Maintenance, and then followed closely by Focused Improvement, Education and Training and also Safety, Health and Environment. All pillars are collaborated to support Company goals as TPM Vision and Mission. As a part of management commitment in TPM implementation, now TPM becomes a part of Company policy.

2.1.2 Company TPM Vision Mission



2.2 Company's TPM Organization Structure

TPM Steering Committee in PT. WDJR consists of Top Management (Board of Directors) who has a strong commitment to deploy the policy for each TPM Pillars, and monitors and leads TPM Pillar Leaders' activities.



2.3 TPM Master Plan

A detailed master plan that guides in detail each group of roadmap is developed. This master plan is used to control all activities and used by the organization to measure on time in full implementation of pillar steps.

| JIPM Phase | Step | Duration | 2016 | | 2017 | | 2018 | | 2019 | | 2020 | | 2021 | | 2022 | | 2023 | | 2024 | |
|---|--|----------|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|
| | | | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 |
| Phase 0: Pre-Planning for machine/model line | 1. Management Statement of TPM Implementation | 1 Day | █ | | | | | | | | | | | | | | | | | |
| | 2. TPM Training & Campaign | 1 Months | █ | | | | | | | | | | | | | | | | | |
| Phase 1: Pilot Lines Activities | 3. Forming TPM Promotion Organization and Improvement Line Model | 9 Months | █ | █ | | | | | | | | | | | | | | | | |
| | 4. Determining TPM Policies and Objectives | 1 Day | █ | | | | | | | | | | | | | | | | | |
| | 5. Formulating and Improving Master Plan for TPM Implementation and Rollout preparation in PT WDJR Ngoro Plant | 4 Months | | █ | | | | | | | | | | | | | | | | |
| Phase 2: Planning for TPM Master Plan | 6. Kick off TPM Implementation | 1 Day | | █ | | | | | | | | | | | | | | | | |
| | 7. Line/Machine Model Recovery | | | | | | | | | | | | | | | | | | | |
| | 7.1. AM Step 1-3 fulfillment | 4 Months | | █ | █ | | | | | | | | | | | | | | | |
| | 7.2. PM Step 1-4 Activity fulfillment | 4 Months | | █ | █ | | | | | | | | | | | | | | | |
| | 8. Basic Operation & 5R Activity | | | | | | | | | | | | | | | | | | | |
| | 8.1. FI Pillar Initial Activity | 4 Months | | █ | █ | | | | | | | | | | | | | | | |
| | 8.2. AM Pillar Initial Activity | 4 Months | | █ | █ | | | | | | | | | | | | | | | |
| | 8.3. PM Pillar Initial Activity | 4 Months | | █ | █ | | | | | | | | | | | | | | | |
| | 8.4. E&T Pillar Initial Activity | 4 Months | | █ | █ | | | | | | | | | | | | | | | |
| | 8.5. SHE Pillar Initial Activity | 4 Months | | █ | █ | | | | | | | | | | | | | | | |

| JIPM Phase | Step | Duration | 2016 | | 2017 | | 2018 | | 2019 | | 2020 | | 2021 | | 2022 | | 2023 | | 2024 | |
|--|--|----------|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|------|----|
| | | | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 |
| Phase 3: Roll Out | 9. Effectiveness Improvement for each machine | | | | | | | | | | | | | | | | | | | |
| | 9.1. Running Focused Improvement activities | 5 Years | | | | | | | | | | | | | | | | | | |
| | 9.2. Running Autonomous Maintenance activities | 5 Years | | | | | | | | | | | | | | | | | | |
| | 9.3. Running Planned Maintenance activities | 5 Years | | | | | | | | | | | | | | | | | | |
| | 9.4. Running Training for Operation and Maintenance skill | 5 Years | | | | | | | | | | | | | | | | | | |
| Phase 4: Fully Implemented and Upgraded | 10. Develop OHSE Systems | 5 Years | | | | | | | | | | | | | | | | | | |
| | 11. Develop FMEA | 2 Years | | | | | | | | | | | | | | | | | | |
| Phase 5: TPM Awards Years | 12. Continue the implementation and improvement of TPM achievement level | 3 Years | | | | | | | | | | | | | | | | | | |
| | 13. TPM Award | 1 Year | | | | | | | | | | | | | | | | | | |

2.4 TPM Road Map

The TPM roadmap in PT WDJR started in 2016. To ensure that the implementation we did is on track and successful, we submitted for the TPM Award by JIPM in stages for each plants.

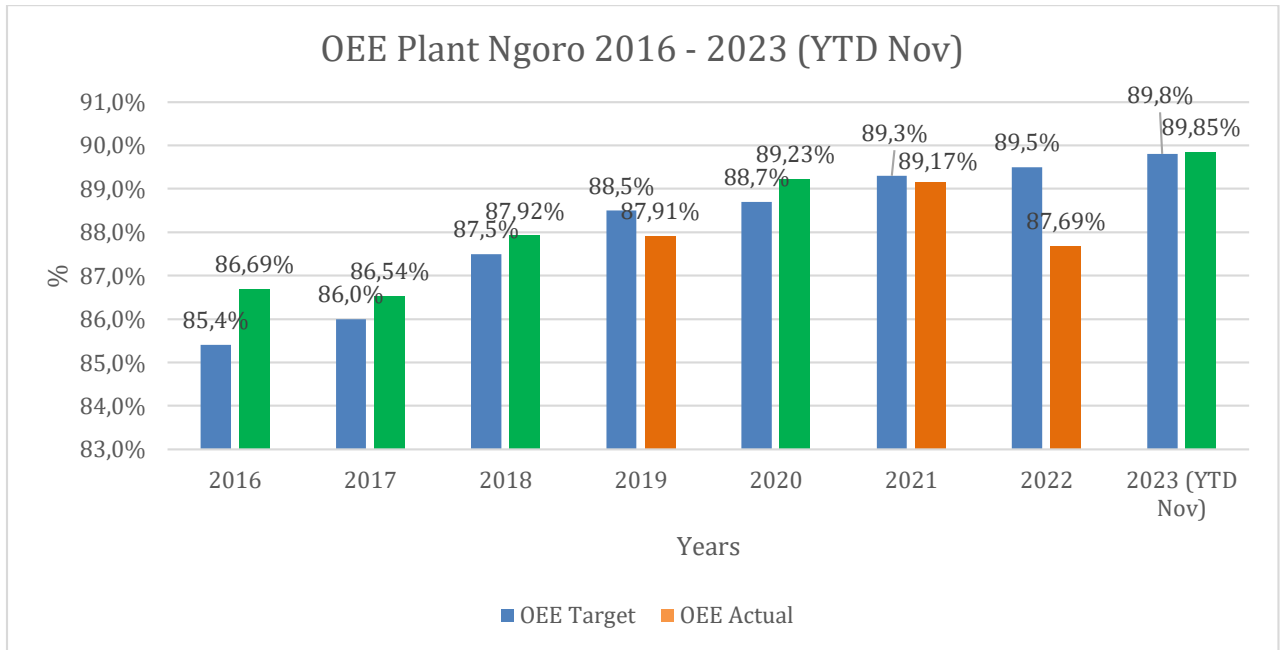


3. BENEFITS ACHIEVED

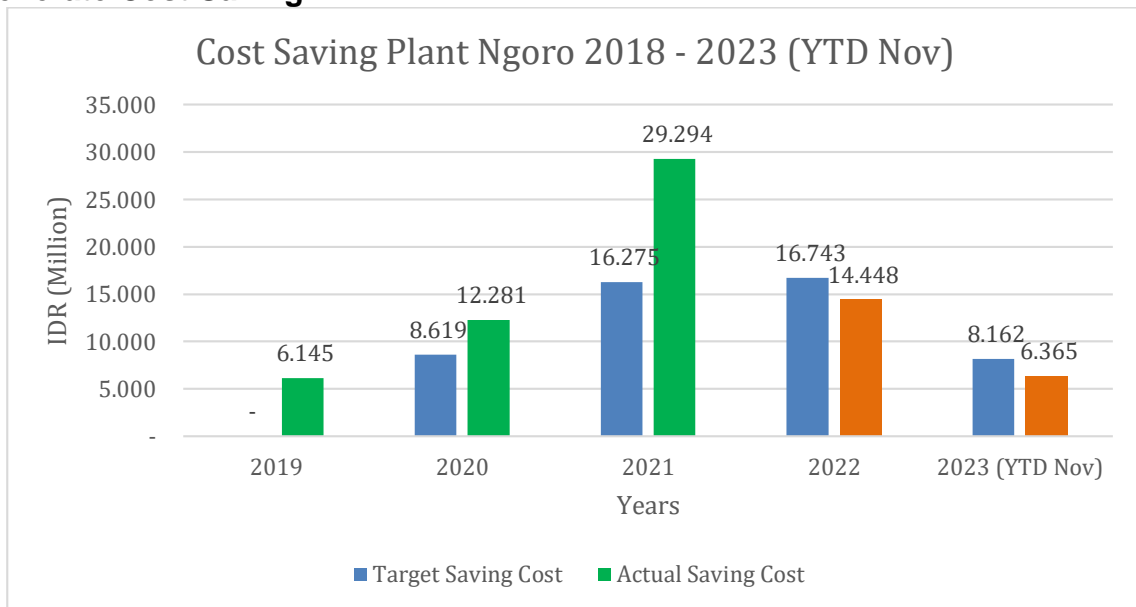
3.1 Tangible Results

There are three Tangible Results that we obtained in implementing TPM, those are Increase OEE, Generate Cost Saving, and Reduce Loss Cost.

A. Increasing-OEE



B. Generate Cost Saving



Note: Before 2019, the structure of cost deployment target and the effort to reach it was not firm yet.

C. Decreasing-Loss Cost



The company has encountered challenging business conditions from 2019 to 2022, which were subsequently followed by a significant deceleration in demand. Ngoro Plant has devised a strategy to bolster its organizational capabilities and productivity with attack 16 losses for Cost Reduction.

3.2 Intangible Results

Through TPM implementation, it is clearly to explain how TPM gives a huge positive impact for all employees in the company not only to achieve the KPI target, some impacts and results are also captured to prove how TPM consists of tools for Company Operation.

- Increase Sense of Ownership
- Create Business Mindset in All Employee
- Strengthen GENBA. GENJITSU. GENBUTSU Culture
- Strengthen Continuous Improvement Culture in Company
- Increase Confidence to Solve Problem with Many Types of Problem Solving Tools
- More Comfort and Safe Workplace Area

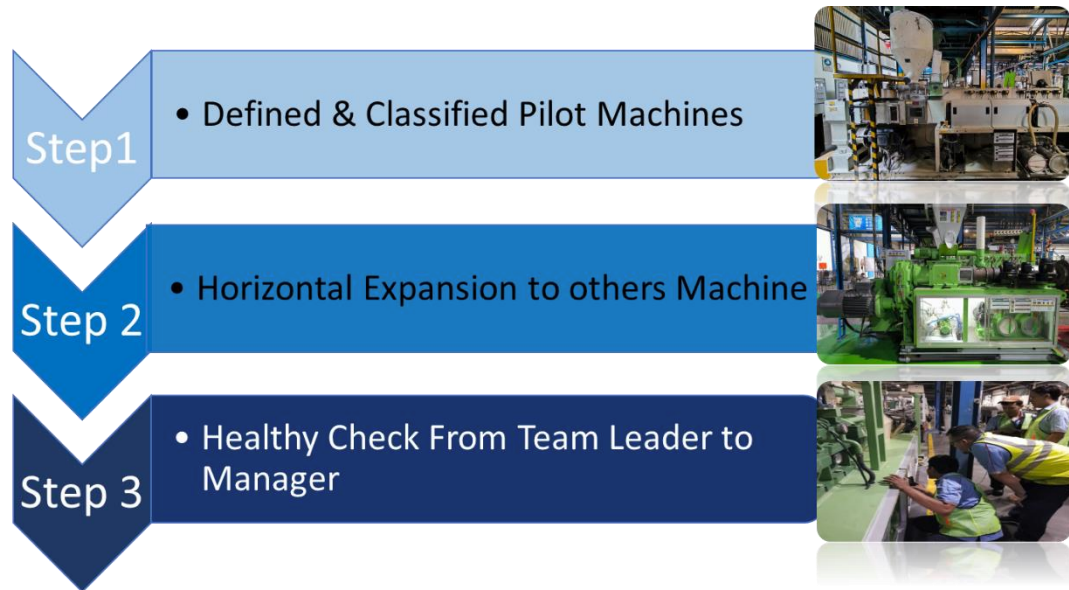
4. KEY OF OUR MANUFACTURING EXCELLENCE

PT. WDJR has 4 key points for success implementing TPM as operational excellence.

- Roll Out Strategy
- TPM Campaign
- Internal Competition
- Daily Management System (DMS)

A. Roll Out Strategy

TPM Roll out conducted in 3 steps:



Strengthen Our TPM Culture



B. TPM Campaign

As part of promoting the TPM system, we established an annual gathering designed as a campaign for TPM activities. This routine event serves as a platform for sharing issues and celebrating achievements related to TPM. The primary objectives of this activity are to boost the motivation of all employees to engage in TPM implementation.



Top management Motivation Speech



Top management Commitment



Spirit from All Leaders



Kickoff TPM

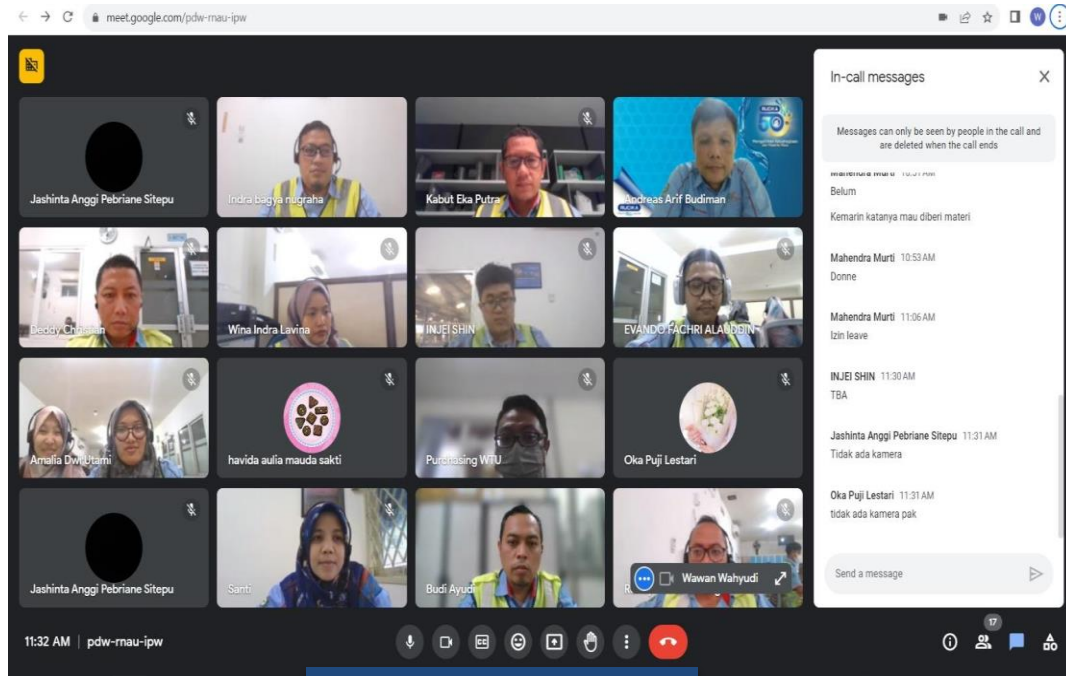
We devised a shopfloor campaign activity aimed at embedding TPM mindset from top-level management to frontline operators. This initiative actively involves operators in areas such as Autonomous Maintenance (AM), Safety, and 5R meetings and trainings.



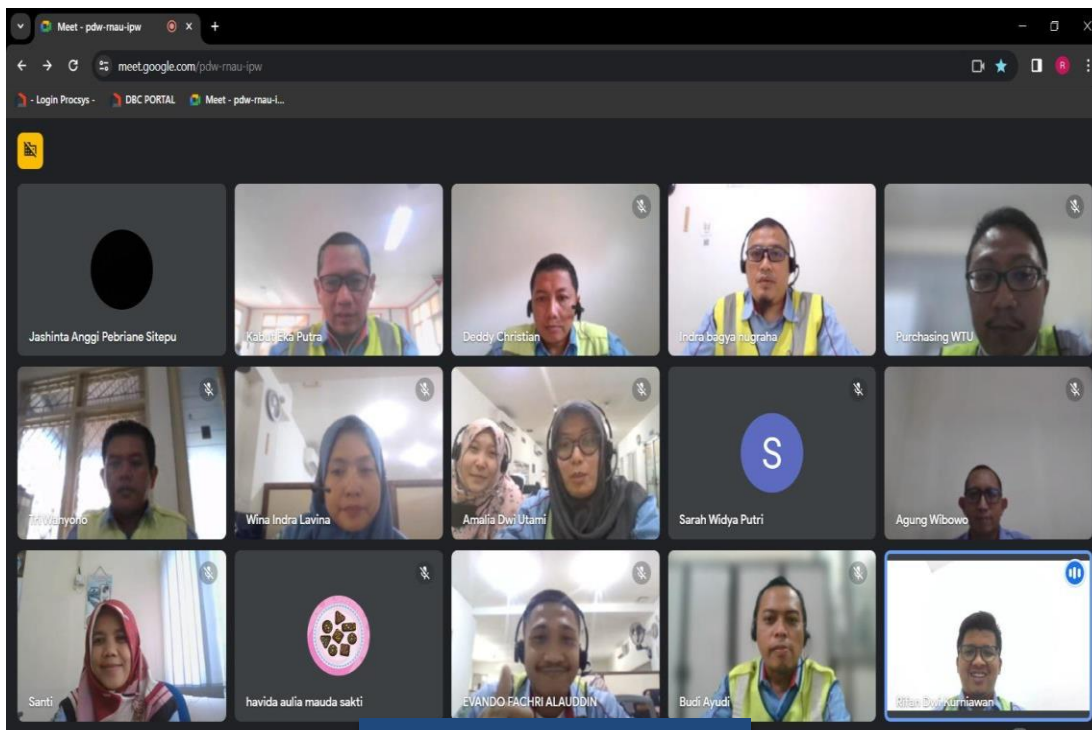
AM Meeting



AM Training



Safety Meeting



5R Meeting

C. Internal Competition

Several events were organized for a program that enables employees to receive recognition for their efforts and accomplishments in activities related to TPM. These events encompass routine improvement activities such as Small Group Activities, Kaizen, and the Conventions



SGA/KAIZEN Ngoro Plant



SGA Kaizen Convention



SGA Kaizen Convention

To maintain high morale, we initiated inter-departmental competitions among employees. These competitions were based on specific criteria focusing on safety standards and the implementation of the 5S methodology (Seiri, Seiton, Seiso, Seiketsu, and Shitsuke), alternatively referred to as 5R, within their respective areas

5R & Safety Activities & Reward



5R Implementations



5R Award



Safety First



Kiken Yochi



Basic Fire Training



Safety Award

D. Daily Management System (DMS)

For maintaining the effectiveness of TPM implementation, and fosters a culture of ongoing improvement within company-wide, PT WDJR implementing Daily Management System (DMS), as structured below

| Meeting | Item Discuss | Attendance | Duration | Time | Tools |
|------------------------------|--------------------------------------|---|------------|---|--|
| Monthly Division Head | KPI | DIC, Manager | 4 Hours | Monthly | Point Control Sheet (Lembar Control Point – LCP) |
| Monthly Department Head | KPI | DIC, Manager, Department Head | 6 Hours | Monthly | Point Control Sheet (Lembar Control Point – LCP) |
| Monthly Section (Supervisor) | KPI | Manager, Department Head, Supervisor | 2 Hours | Monthly | Point Control Sheet (Lembar Control Point – LCP) |
| Weekly Report | Safety, Tagging, Planning, KPI Group | Manager, Department Head, Supervisor, Quality Assurance & Engineering | 1 hour | Weekly | Dashboard KPI |
| Daily Control System | Planning, Safety, Tagging, KPI Group | Manager, Department Head, Supervisor, Quality Assurance & Engineering | 30 Minutes | Daily (09.00 – 09.30) | Dashboard KPI |
| Briefing & Shift Handover | Attendance & Next Process | Team Leader, Foreman, Operator | 15 Minutes | 16.00 – 16.15 24.00 – 24.15 08.00 – 08.15 | Shift Dashboard |

5. ACHIEVEMENT RECORD

| | |
|-----------------------|--|
| Company & plant name | PT. Wahana Duta Jaya Rucika Ngoro Plant |
| TPM Slogan/Objectives | To be world class manufacturing through TPM implementation |

| Category | Index (Calculation Formula) | Unit | Kick off/ TPM Started (2016) | Actual Status 2023 (YTD Nov '23) | Target 2024 |
|----------|--|------------------------------------|---------------------------------------|---|----------------|
| S | Number of work-related accidents requiring days off work | Cases/ year | 4 | 1 | 0 |
| S | Number of work-related accidents not requiring days off work | Cases/ year | 2 | 0 | 0 |
| P | Productivity for main products | Ton/FTE | 23,13 | 26,28 | 27,00 |
| P | OEE (or Overall Plant Efficiency) | % | 86,69 | 89,85 | 90,40 |
| P | Availability | % | 97,40 | 97,18 | 97,30 |
| P | Performance Rate | % | 91,51 | 94,56 | 94,50 |
| P | Quality Rate | % | 97,26 | 97,77 | 98,30 |
| P | Number of breakdowns | Breakdowns/ year | 327 | 157 | 153 |
| P | MTBF | Hour | 268,84 | 427,88 | 440,00 |
| P | MTTR | Hour | 5,51 | 6,70 | 6,00 |
| Q | Customer Complaints | CpM (Complaints per Million) | 2,27 | 0,51 | 0,45 |
| Q | Reject Rate | % | 2,50 | 2,05 | 1,85 |
| C | Maintenance cost | Rp/Kg | 196,08 | 190,60 | 175,00 |
| C | Energy Consumption | kWh/Kg | 0,35 | 0,33 | 0,33 |
| D | Delivery performance | % | 72,50 | 98,70 | 96,00 |
| M | Shopfloor Activity (RCFA, ODSP, SS) | Number/year | 37 (Y2020) | 195 | 220 |

| | |
|-------|--|
| Other | <p><Specify achievements not expressible in numerical terms></p> <ol style="list-style-type: none"> 1. Do you have a program where all employees can participate in TPM? Yes 2. Do you have a program allowing employees to be recognized for their achievements? Yes 3. Are top management involved in the audit/verification of completion of TPM pillar steps? Yes <p>Are all pillar activity boards displayed and reviewed by top management? Yes</p> |
|-------|--|

Note: Have the indices covered all important items related to PQCDMS measures being undertaken in the entirety of the subject to be assessed. Note all indices in the TPM Activity Report. Where your specific indices vary from those above attach relevant data.