CASE STUDY

DANONE GROWS MAINTENANCE MATURITY WITH ASSET IMPROVEMENT PROGRAM

The Nutricia plant in Zoetermeer has a long and rich history dating back to 1896, emphasizing innovation, advanced technology, and high quality in its production. Since 2007, Nutricia is part of Danone. The Zoetermeer facility is dedicated to the production of specialized, liquid medical nutrition, contributing significantly to the well-being of consumers and patients globally, with its products being distributed to over eighty countries.

AMBITIONS: MAINTENANCE MATURITY GROWTH

The Zoetermeer factory is an essential site within Danone's operations. The factory has been at its current location for over 125 years. Danone contacted MaxGrip because they saw the potential to improve their maintenance maturity and bring it to the next level. This also included the potential for maintenance and operations to collaborate more and align their way of working and goals. MaxGrip was asked to scope the potential improvement areas and set up a deployment program for it.

APPROACH: FUTURE MAINTENANCE ORGANIZATION

MaxGrip applied the Asset Improvement Program at the Zoetermeer plant of Danone. At the highest level, this consists of two important stages: an Asset Improvement Mapping (AIM) to scope the current situation and improvement potential and an Asset Improvement Deployment (AID) to make improvements a reality.

Asset Improvement Mapping

The AIM assess fourteen essential asset management competencies within the dimensions of asset reliability, overall management and execution of maintenance. As part of the AIM, MaxGrip interviewed stakeholders across the organization, did a plant walkdown and analyzed relevant documents and data. It became clear from the AIM that Danone was at that moment at a maintenance maturity level that had the potential to grow. This meant that they had a tendency to respond rapidly to problems or breakdowns when they occur. The plant could grow to a task-optimized level that is guided by experience, with an emphasis on the management of objectives through standardized short-term work monitoring and control. Setting up a process to determine their performance killers (or bad actors) would enable them to focus their APM activities on the assets that matter.

In order to grow to another level in their maturity, MaxGrip gave Danone several recommendations. To get an idea, these recommendations included:

Management

- Tailor objectives more to maintenance and follow up actively with KPI dashboard
- Optimize roles and responsibilities for all maintenance departments with alignment of unit structure for maintenance and production

Maintenance Execution

- Optimize and implement workflow management, incl.:
  - Optimize and implement gatekeeping and prioritization process
  - Improve work order management with standardization of reporting and continuous improvement loop

Reliability

- Optimize the Preventive Maintenance program including optimization loop
- Develop and implement a Bad Actor process

The findings were discussed with the key stakeholders at Danone and based on their input a roadmap and program was set up. Together with a few company-initiated additional improvements, the roadmap was ready to be deployed.

Asset Improvement Deployment

Moving forward, we commence with the initial step of the execution process, also known as an Asset Improvement Deployment (AID). This step involved refining the improvement roadmap, establishing detailed plans, and defining deliverables. Throughout this AID stage, Danone was in the lead and MaxGrip consultants lend their expertise and perspectives in a supporting and coaching role, unless specifically asked otherwise.

The deployment was called the Danone Future Maintenance Organization Program. The program was led by a multidisciplinary core team of different departments and teams.

The scope of work was divided into fifteen teams covering different topics for example:

- Objectives and KPIs
- Roles and Responsibilities
- Skills, Competences & Training
- Team Warehouse & Spare Parts
- Team Workflows & Notifications
- Planning and scheduling
- Bad Actor Process

"We are very happy with the program and the support that the MaxGrip consultant has given. Everything that was delivered is actively used by Danone such as the KPI dashboard, the workflow management and the dashboard for bad actors. The program contributes to the improvement of processes and company results in the longer term."

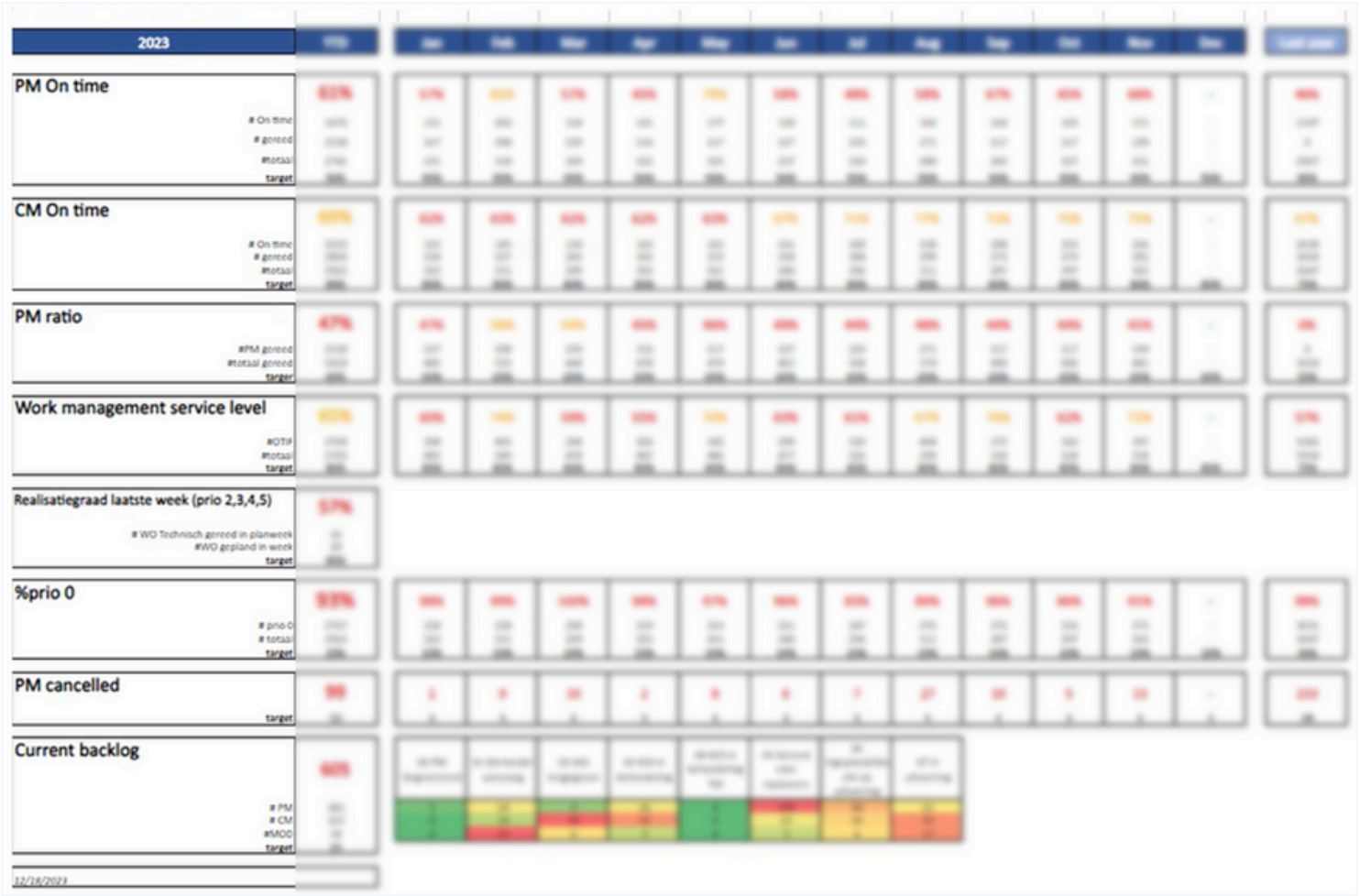
Vincent Bouter
Maintenance Manager at Danone

Workflow Management and KPI Dashboard
The interconnection between the teams and improvement plans was shown well in the example of workflow management, roles & responsibilities and KPI dashboarding. The workflow was recalibrated and reintroduced with up-to-date documentation and training materials.

We also made sure these changes were reflected in the EAM system, clearly defining roles, rights, and responsibilities. This helped in making the workflow smoother and more efficient. Additionally, we worked on accurate data validation to aid maintenance engiThe findings were discussed with the key stakeholders at Danone and based on their input a roadmap and program was set up. Together with a few company-initiated additional improvements, the roadmap was ready to be deployed.
neers in better failure data analysis, workflow tracking, and KPI monitoring, leading to a more effective way of working.

The improved way of working showed immediate results in the KPI dashboard. The number of canceled Preventive Maintenance tasks; PMs went down significantly as well as the percentage of 'Priority 0' work orders. Both indicated a starting shift away from fire-fighting mode.

Figure 1: KPI Dashboard



BENEFITS

IMPROVED MAINTENANCE MATURITY

The Future Maintenance Organization Program within Danone will be continued within a bigger corporate program. The teams are well underway to become a great success. MaxGrip has stopped support and has transferred full ownership and responsibility to the Danone core team. The plant in Zoetermeer is growing rapidly towards a proactive maintenance maturity level. Some results so far:

- Gatekeeping has improved significantly as part of the new workflow. Case in point is the decrease of 'Priority 0' work orders with 15% at one department.
- The new way of working has increased awareness of processes and improvement potential, for example decreasing the backlog with 25%.
- The collaboration between operations and maintenance has increased thanks to the multidisciplinary way of working. Shift leaders and operators have worked in the teams, given input for the workflow and are part of new shared planning meetings with maintenance.
- The maintenance engineers all finished their first bad actor analysis following the new developed process and template, enabling them to optimize their maintenance strategy on their worst performers.