

CASE STUDY

CHEMICAL PLANT REALIZES MAINTENANCE MATURITY GROWTH WITH ASSET IMPROVEMENT PROGRAM

This global company has produced specialty chemicals for more than a hundred years. The manufacturer has facilities in over twenty countries around the globe. The chemical company realized that the asset performance of their Dutch plant could be improved. They asked MaxGrip to do an Asset Improvement Mapping (AIM) to scope their potential growth and to plot the first steps on the roadmap to better asset performance and a higher maintenance maturity level.

CHALLENGE: IMPROVE MATURITY LEVEL

The company wanted to transform to a maintenance demand organization and work more with contractors to increase their maintenance maturity. The company recognized that it was important to get a better overview of their current situation and what the roadmap to improving production output and lowering Total Cost of Ownership would be. Following on that, the company wanted to take the first steps towards improving the site's asset management organization.

SUMMARY

CHALLENGE

Change to a maintenance demand organization. Get an overview of current situation and improve and change organization to grow asset performance.

APPROACH

- Asset Improvement Mapping: Assess situation, build a business case with realistic improvement potential
- Asset Improvement Deployment: implement suggested improvements for the dimensions of people, processes, data and systems.

RESULTS

- Growth from firefighting to functional maturity level
- PM:CM ratio from 10:90 to 50:50
- Pro-active and effective interdepartmental collaboration through shared dashboards

APPROACH: ASSESSMENT AND FIRST IMPROVEMENTS DEPLOYED

Stage One: Asset Improvement Mapping

The first stage of our work consisted of an assessment, the asset Improvement Mapping (AIM), of the current maturity level of the asset management organization. This included data and information collection, stakeholder interviews and a plant visit. Based on all of these inputs, we applied our unique MaxGrip methodology to map the improvement potential. The report out includes a realistic business case and first suggestion for a deployment roadmap.

A lot of the maintenance work was done on an ad-hoc basis at the plant so, not surprisingly, the Asset Improvement Mapping showed that the maturity level of the chemical plant was at a low firefighting level. Based on the thorough fit/gap analysis we did, around twenty realistic and concrete actions were suggested to help the company mature its asset management. These included recommendations in the area of processes, roles & responsibilities, systems & tools, data and culture and way of working. As all of these dimensions are connected, together they give the organization the best possible chance of long-lasting asset performance growth.

Stage Two: Asset Improvement Deployment

In the second stage of the Asset Improvement Program at the chemical company, most of the suggested improvements were deployed. This started out with a comprehensive planning with milestones to ensure project success. A big part of the project was focused on people, interdepartmental collaboration and change. We teamed up with the workforce and assisted them where possible with their roles and tasks. We also provided over-the-shoulder coaching. This helped greatly with having employees embrace and adopt the changes.

In addition, by working alongside the employees we were able to facilitate collaboration between Production and the Technical Department (Maintenance) to work towards the set objectives in shared dashboards.

An overview of the improvements we implemented:

Management

- KPIs and objectives determined which are aligned with overall business goals
- Maintenance reference plan created
- Improve longer-term planning and budgeting
- Shared dashboards created and in use

Processes and organization

- Organizational structure updated: maintenance demand organization set up incl. corresponding roles and responsibilities and organizational change. This includes work for disciplines such as work preparation and planning, maintenance management, project management and supervising.
- Work preparation processes in place
- Implement engineering standards
- Mapping assets in overviews to be able to easily outsource maintenance
- Workflow process updated

People

- Enhanced collaboration between Maintenance and Production; improving communication structure, facilitating co-ownership of results
- Change management through coaching the workforce to adopt the changes; realizing a collaborative and more positive work culture
- Management coaching for Maintenance team lead and production manager

Maintenance improvements

- Root Cause Analyses (RCA) performed
- Pilot for Risk-Based Maintenance (RBM) started to boost more predictive and preventive maintenance and less corrective maintenance
- Maintenance work packages updated and prepared for outsourcing

System improvements

- Asset master data cleansed
- Cleaning up of the system: corrective maintenance tasks updated
- Preventive maintenance added

RESULTS: IMPROVED MATURITY

The maturity level has improved and the chemical company has grown its maintenance maturity from firefighting to functional. The company went through a radical transformation and has achieved a better asset performance level on which they can build further. In the past, the maintenance organization was mostly focused on carrying out corrective maintenance tasks. Now the PM:CM ratio is more in balance with about 50% preventive maintenance and 50% corrective maintenance. In addition, through insights made available in shared dashboards and a new way of working, Production and the Technical Department are able to work together pro-actively and effectively. This has significantly increased job satisfaction, work culture and internal adoption of the new way of working.

ABOUT MAXGRIP

MaxGrip consultants enable organizations in asset-intensive industries to achieve continuous improvements on their asset performance, also using the power of Digital Transformation. MaxGrip embraces Industry 4.0 with an APM and maintenance track record of over twenty years in industries like Oil & Gas, Food & Beverages, FMCG and Utilities & Infrastructure. We operate on all continents and have a global presence with three main offices in the Netherlands (HQ), USA and Malaysia.

GET IN TOUCH



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