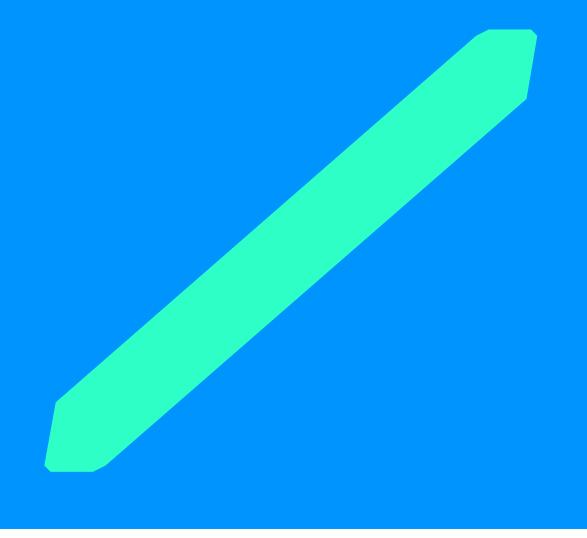
References.





Reference letter

Concerning: Reference case letter – Bright Site Project (BSP) of Sibelco Maastricht
Hereby, in the name of Sibelco The Netherlands, I, Danny Jans state that PDM Consulting B.V. (further to be called PDM) completed successfully the Bright Site Project (BSP) of Sibelco Maastricht with excellent results and to our expectations.
The project description is attached to this certificate.
We wish PDM success with their further projects,
Sincerely,

Danny Jans

Vice President Operations South West Europe
Sibelco



Case: Sibelco

Bright Site Project (BSP) of Sibelco Maastricht

BACKGROUND SIBELCO

Sibelco is a global material solutions company. As a provider of industrial minerals they transform natural raw materials into quality products across a wide range of industries. Sibelco was founded in 1872. Today, Sibelco is a multinational business, operating in over 200 production sites in more than 40 countries with a team of over 10,000 people.

ASSIGNMENT

Sibelco initiated the Bright Site Project (BSP) of Sibelco Maastricht. Sibelco defined earlier the goals and approach for this program. Sibelco asked PDM already early 2017 for their project in Norway, Finland, France, Russia and the Netherlands. This case only describes the project in Maastricht in detail. For Maastricht site, PDM supported the local team with two change experts in executing, guiding and reaching the project goals within the operations optimization part of the BSP. The operations optimization aimed to sustainably reduce Sibelco plant cost and increase plant productivity and availability while setting a new (standardized) Way of Working (WoW). For the BSP site 3 work streams were defined: site Productivity, Energy & Maintenance. Maastricht started with a site ambition of 8- 10 % cost saving.

PROJECT APPROACH

The project approach for each work stream existed of 4 building blocks: initiatives, quick wins, way of working and capability building.

1-Initiatives

First of all the local change team has been set up and project governance during the **PREPARE (A)** phase. Next the site was requested for all necessary data to define the baseline (year 2016) and to gain insights into the historical and current financial- and operational facts of each work stream. The financial and operational facts of the last 3 years were visualized in the 'fact pack' report and is presented during the kick-off.

During the **DIAGNOSTIC** (**B**) phase a team of Sibelco experts was supporting the local change team with the execution of the assessments, interviews, productivity measurements, data analysis, benchmarking and mindset & behavior survey for each work stream. At the end of this phase all levers were defined and a rough improvement potential was identified for each work stream. The outcome of this phase was summarized in the diagnostic report and was presented to the Sibelco management.



In the 3rd phase **Bright Site Room* (C)** the required BSP way of working was introduced to achieve the BSP deliverables within the defined scope, budget and planning. Reports, roles, responsibilities, daily/ weekly review meetings, physically set-up of the Bright Site Room are key elements of the BSP way of working.

The issue trees were also defined during this phase for each work stream. Here the challenge was to break down the site P&L in subtopics until the level of detailed issues. These issues were prioritised according to the quantified diagnostic opportunities. The high priority issues were grouped into 10 workshop topics based on similar content, root cause, group of people, etc.

The idea generation workshops were prepared and executed during the **DESIGN** (**D**) phase. For each workshop we examined the root causes for the issues and we built a detailed fact pack on issues and root causes to share during the workshop. During the workshop ideas were generated, grouped and prioritized to solve these root causes. This prioritization was based on estimated impact and ease of implementation. After the workshop the impact, investment and payback time was calculated for all prioritized ideas. These ideas are now grouped into initiatives based on similar content, root cause, P&L impact, etc. All initiatives were presented to and validated by the Sibelco management.

During the **PLAN** (**E**) phase each initiative was described in a business case template and was entered in a project follow up tool. Each business case existed of a detailed explanation of the project, detailed costs and impacts, a tactical implementation plan and defined KPI's to measure the financial impact of implemented improvement actions. A final alignment of required resources was done in between the 3 work streams. At the end of this phase the Sibelco management decided which initiatives were going into implementation. The plan was signed off by the local management and will be leading for implementation.

In the last phase **IMPLEMENT** (**F**) a very detailed 12 weeks planning was made for each work stream and developed a rigorous tracking and implementation governance has been initiaded at site level to follow up progress of implementation at site level.

Ready, set, go...

*Bright Site Room = A central place where people are continuously brought together to brainstorm on new ideas = basis for new Way of Working (WoW).



2-Quick wins

Generated ideas during the design phase (or other phases) with no capex needed, clear execution plan available and implementation time <3 months were fast-tracked to implementation. These quick wins were weekly followed up.

3-Way of working

Sibelco selected 8 tools (e.g. KPI and Review Cascade, Visual Management and Performance Dialogues, etc.) to improve the way of working in daily operations. During the BSP project we started to implement the most critical tools for the production and maintenance department.

4-Capability-building

A capability-building program for local site and change team was integrated during the BSP. This training program existed of BSP modules to support change team activities during the BSP, way of working modules and lean technique modules for identification, prioritization and implementation of new improvements by the site after BSP.

PROJECT RESULTS

The project goals were achieved successfully and were initiatives. Maastricht started with a site ambition of 7-8 % cost savings which we could achieve at the end of the project.

Way of working

- > Clear objectives (KPI's) rolled out to shop floor
- > Daily follow up of KPI's by shop floor
- > 2 weekly problem-solving meeting by production operators and maintenance technicians
- > Setting priorities based on facts (pareto)
- > The site understands the need of continuous improvement to reduce daily calamities
- > The site is open to the BSP way of working to implement improvements in a systematic way

Capability-building

> Weekly capability training has supported the site management team in using LEAN management techniques



The impact of our work

"We had a pleasant and open collaboration with PDM.

All the time, the communication was open and honest.

There was no closed agenda on both sides and we have learned a lot of new things. The knowledge exchange went easy and the results are good. We have often exchanged ideas about how the approach can be in the future. It fits well in the key-behaviors."

Jan Jansen - European Operations Optimization Manager Sibelco

