# Optimization of selected processes of project management in Doosan Škoda Power s.r.o.

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## ABSTRACT

This thesis aimed to increase the time efficiency of information acquirement of the project management process in selected companies. DMAIC method of Lean Six Sigma methodology was used for this process optimization. The process was defined, measured, and analyzed according to this method. Quality methods were used for process analysis, particularly the Ishikawa diagram and 5 Why. Both methods were used via brainstorming. The root cause of the problem was discovered thanks to these methods. The main root cause of the analyzed problem was the absence of a summary file of needed information. MS Excel database containing the required information needed for process improvement was created in the practical part of the thesis. The database uses information about projects that are created by project managers. Recommendations for database implementation, change of process and incorporation of new information to the project log, which are supposed to increase the search effectiveness of databases, were stated in the thesis.

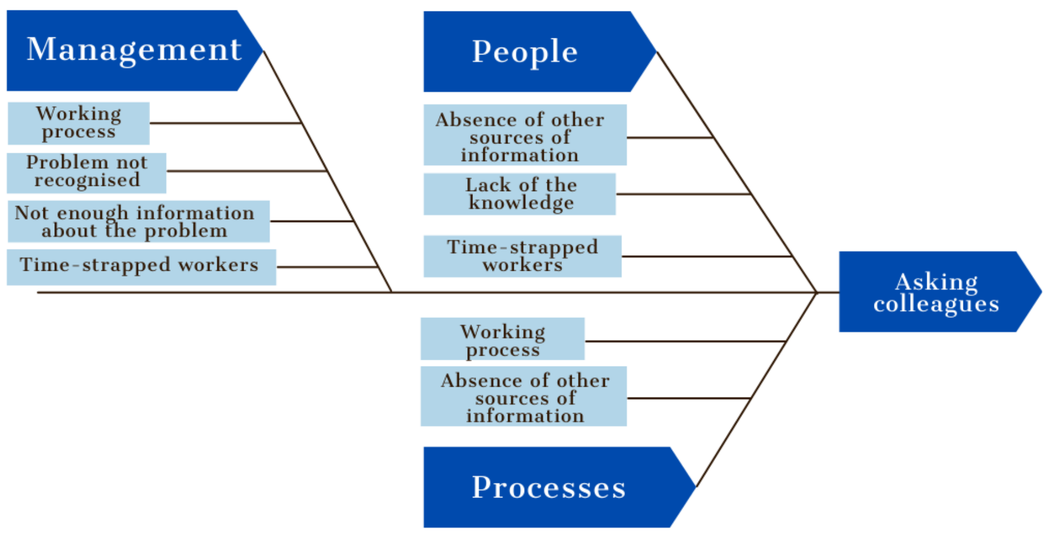
## INTRODUCTION

This thesis focused on project management process that showed possibilities for improvement. Process was defined and analyzed. The primarary root cause of the identified deficiencies was discovered through the analysis of the process. The main issue was ineffective aquisition of information. There was no other option how to obtain certain information other than asking colleagues. To eliminate this problem an MS Excel database was created, containing data about project, its risk, and lessons learned that are documented. A dynamic dashboard that utilizes data from the database was also created. The purpose of this dashboard is to provide information, and it prominently displays key project details.

## METHODS

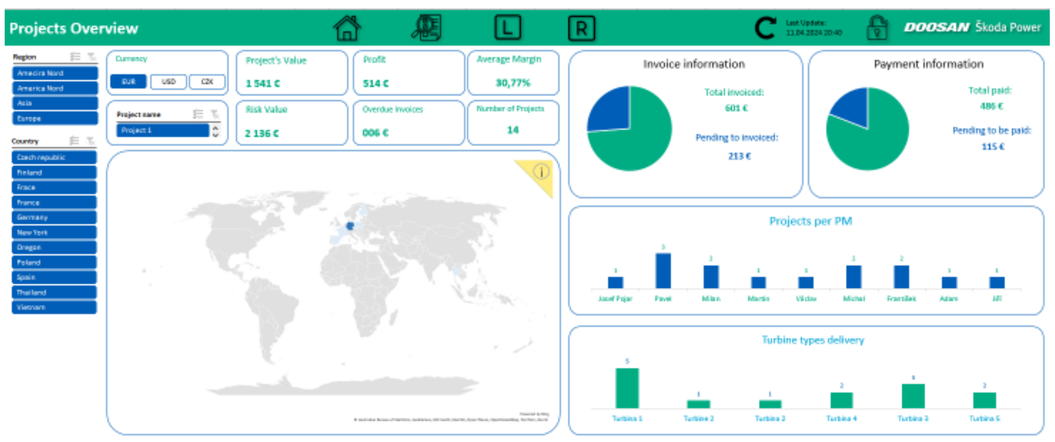
DMAIC method from Six Sigma methodology was used for process optimization. The Ishikawa diaghram and the 5 Why were utilized as tools within DMAIC. Process was firstly defined and then analyzed with the metioned tools. During definition phase, the exact goal was set. The primary root cause of the problem was identified in analysis phase. An MS Excel databse was created as a tool to achivie the defined goal.


DMAIC method




Ishikawa diagram

## RESULTS




Interactive Dashboard

| Project No. | Project name | Client DSPW | Client final | Country | Region | Contract effective date | Turbine type | TA / Supervision / Turn-key delivery | Date of registration | Category of the issue |
|---|---|---|---|---|---|---|---|---|---|---|
| P100264 | Project 1 | Client 1 | Client 1 | Germany | Europe | 28.02.2050 | Turbina 1 | Other, please specify! | 16.06.2023 | Commercial |

Leasons learned database

| Project No. | Project name | Client DSPW | Client final | Country | Region | Contract effective date | Turbine type | Site activities | Standards | Project manager | HIP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P100264 | Project 1 | Client 1 | Client 1 | Germany | Europe | 28.02.2050 | Turbina 1 | Other, please specify! | EN | Pavel | Daniel |
| P100264 | Project 2 | Client 2 | Client 2 | Poland | Europe | 28.02.2050 | Turbina 1 | Other, please specify! | EN | Milan | František |
| P100275 | Project 3 | Client 3 | Client 3 | France | Europe | 28.02.2050 | Turbine 2 | Other, please specify! | EN | Martin | Vít |
| P100280 | Project 5 | Client 5 | Client 5 | Czech republic | Europe | 28.02.2050 | Turbina 2 | Other, please specify! | EN | Václav | Dominik |
| P100285 | Project 4 | Client 4 | Client 4 | Frace | Europe | 28.02.2050 | Turbina 1 | Other, please specify! | EN | Michal | David |
| P100292 | Project 6 | Client 6 | Client 6 | Germany | Europe | 28.02.2050 | Turbina 1 | Other, please specify! | EN | Michal | David |
| P100293 | Project 7 | Client 7 | Client 7 | Spain | Europe | 28.02.2050 | Turbina 4 | Other, please specify! | EN | František | Petr |
| P100298 | Project 8 | Client 8 | Client 8 | Finland | Europe | 28.02.2050 | Turbina 3 | Other, please specify! | EN | František | Tomáš |
| P100299 | Project 9 | Client 9 | Client 9 | USA | America Nord | 28.02.2050 | Turbina 4 | Other, please specify! | EN | Milan | Ivan |
| P100300 | Project 11 | Client 11 | Client 11 | Chile | America Latin | 28.02.2050 | Turbina 3 | Other, please specify! | EN | Pavel | Daniel |
| P100302 | Project 12 | Client 12 | Client 12 | Vietnam | Asia | 28.02.2050 | Turbina 1 | Other, please specify! | EN | Pavel | Tomáš |
| P100303 | Project 13 | Client 13 | Client 13 | Germany | Europe | 28.02.2050 | Turbina 5 | Other, please specify! | EN | Ivan | Ondřej |
| P100305 | Project 14 | Client 14 | Client 14 | Thailand | Asia | 28.02.2050 | Turbina 5 | Other, please specify! | EN | Adam | Jakub |
| P100307 | Project 15 | Client 15 | Client 15 | Germany | Europe | 28.02.2050 | Turbina 3 | Other, please specify! | EN | Jiří | Jan |

Data of projects

## CONCLUSION

Dynamic dashboard and database of lessons learned and risk logs were created in the pracical part of this theses. Recommendations about the implementation of the database, modificaion of the domumentation of lessons learned, and a proposal of process change were stated at the end of this thesis. The tools created aim to decrease the time needed to acquire certain information in the selected department.