Summary

During the last centuries products and projects have become more and more complex. After the Second World War there were some trends like decreasing time to market, decreasing throughput time, technical more complex products and multiple stakeholders, which influenced production-projects dramatically.

Due to this development, production companies radically changed in many ways. The amount of information increased dramatically and became more important for production companies. Due to this increase, many companies face the challenge how to get better control over the total flow of information and for this purpose configuration management is embraced by an increasing number of companies.

Configuration management was primarily introduced to keep information up-to-date especially with regard to the produced item. As the need for information within companies nowadays takes a run and the control of this information becomes more complex the question arise if configuration management is the solution for managing information in present-day information-intensive industry.

Until the nineties there where two configuration management main streams, the first was the classical configuration management, focusing on product information. The second was software configuration management, which was introduced by software companies. In the nineties the digitalization of information took a run and configuration management was adopted within the companies to control all kinds of information flows.

Configuration management consists of an information handling function and a change control function with the combined goal to keep an accurate description of the configuration item. Identification, storage and status reporting are responsible for the handling of information. As decisions should be made based on information, the combination of these three functions is of vital importance for many other supporting functions to supply these functions with the needed information.

In the past information was stored locally, sometimes grouped within a department, sometimes per person. Combining the stored information can be extremely valuable for many processes within a company, in this way relations between information can become clearer. However, in the process where customer needs are transformed into a product and finally into waste, changes are inevitable. This is why change control is part of configuration management

The information handling function focuses only on the proper storage of the information and therefore is purely a supporting function. The change control function tries to prevent time-loss due to changes. The best way to do this, is by preventing change is necessary. If a change is inevitable, the best moment to introduce it is in an early maturity state where consequences are low.

One can see that configuration management is all about communication, defining this communication and be aware of the actions. This can be a benefit within a company, but also very helpful in case of a multiple stakeholders project like an outsourcing project. Clarity in communication and the sharing of the produced results becomes increasingly important, however while complexity grows this will become an increasing challenge

To implement configuration management it's important to choose the right organization type. In case of information regarding a project or a product, for example the configuration management follows the product, it is not bounded in different departments of an organization but instead it is an overarching function.

Configuration management can be a first step to get better control over modification sensitive information. The philosophy is if the handling of the information and changes regarding that information is done in a tight and organized way, like we also see that in the product environment, this will majorly increase the accuracy of the information. The disadvantage of this way of thinking is that two major streams are running parallel through the process and must both be equally important. Since both streams need to be consistent with each other, tuning the process will be increasingly difficult. Besides there is also a big disadvantage in the bureaucracy which is introduced by the formalisation of the produced information.

Configuration management can be the answer to the increasing need of information management in present-day's information-intensive industry. Definitely in an environment where there is dealt with multiple stakeholders and technical very complex products. However challenges lie in the way configuration management is placed within the organisation as this determines what can be achieved by implementing configuration management.