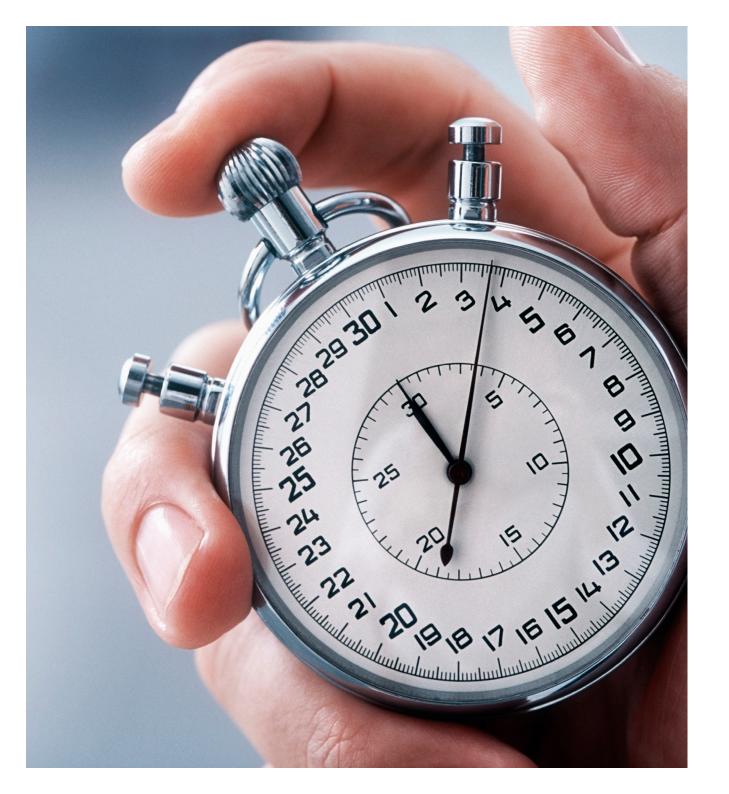
FINDING AND BENEFITING FROM HIDDEN PRODUCTION VALUES

It starts here.





It's time-saving, production efficient and will save you material as well as money. A fair amount of waste optimization will do your business good. And, it's always a great way to create a more sustainable business.

Despite of what many might think, there is a lot of waste in modern production. And it waste from all parts of the production cycle, not only residual waste. To be able to identify and care for all your material is getting more and more important. An overall waste management is something many industries have overlook in the past, even if there is a lot to benefit from it.

"My job is to help the customer to want value-creating optimization"

NN is very often in different production environments, to support customers in their optimization and to find hidden values in the processes.

"It's not so hard to find possible approaches. You can use one of the many methods in the Lean process thinking. You've maybe heard of some of them, like Sigma six and Kaizen. It's all about finding ways to make smaller adjustments that together add up to larger benefits."

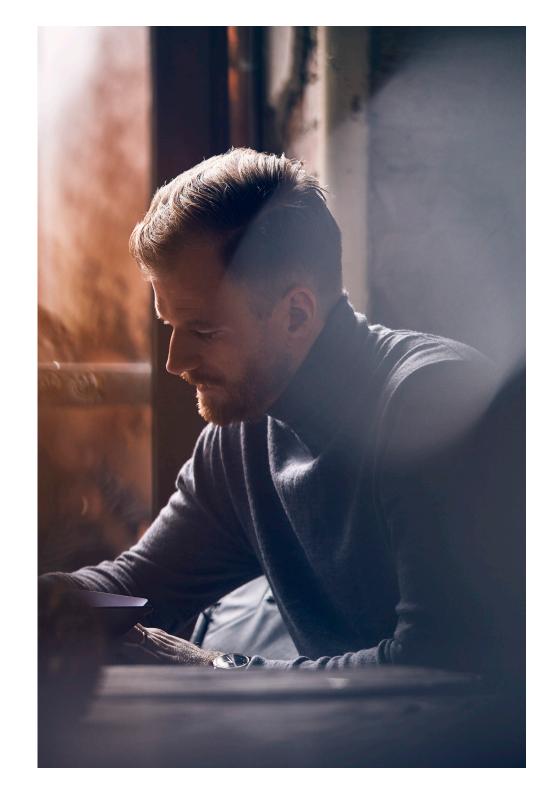
A LEAN EXAMPLE

"We have implemented customer work groups at several industries, into the production environment. A group of people are given an area of responsibility and are involved in the ongoing development. This approach harmonizes with most points within Lean production. For example, co-workers see for themselves what needs to be improved. This also develops and creates an understanding of the existing development areas. Examples of benefits include minimizing internal handling time, as well as material savings.

This also reduces sorting errors and thus either increases revenue or decreases costs, as sorted waste has a greater value. At the same time, the workgroup's input creates a sense of responsibility and influence at their work place, as waste from time to time can be a time-consuming part of work."

"In some industries, we have sorting containers right at the assembly line, instead of at a central waste collection point. This means that the staff don't have to go to the waste station all the time. It also keeps the workplace neat and tidy, an important part of the Lean principle Sigma 5. You also minimize the time it takes for employees to manage the waste in-house. Another smart contribution is to standardize waste management and to create basic packages — including the best available containers for the waste types found at all locations in the factory."

"As always, my job is to help the customer to want value-creating optimization, explaining how this saves time as well as it is a financially and environmentally sound move."





BENEFITS OF CONSTANT OPTIMIZING

"The biggest benefit is that we create a relationship between the customer and the recycler. This set up the conditions for all future solutions. Being part of the customer's business builds credibility and trust for all future collaborations."

"When we start to create values, we also add to the synergy; we create increased awareness and add to the customer business, as well as we save time and lift the materials and products up the waste hierarchy."

"From my experience, I'd say it's important

to do a fair amount of testing to see what actually works. I also think it's important for industry management to sometimes go outside their comfort zone. Especially for the experienced customers that have been around for a while. I've noticed that if I can come up well a well-thought of and elaborated plan, it's a lot easier to onboard an industry. And of course, having a plan where the economy has a vital role. I try to start with a smaller project, showing how you may find smart, tailored solutions."

"In my experience it's essential to dare to test things"

THE IMPORTANCE OF REACHING GOALS

NN goes on and tells us about short-term goals, as they give a sense of accomplishment and that the workplace really achieves things. This also strengthens the relationships of the workplace, as well as being a major contributing factor to increased awareness.

"Try to involve people who are responsible in the production of waste. This creates a feeling of 'us' and contributes to increased efficiency, as it shares the responsibility of what needs to be done when it comes to sorting etc. If you run into problems, you need to address that in your regular, daily meetings. In those cases, it's important to find the source of the problem before you 'move on'. Quite often it brings new insights and new solutions."

"It's essential to constantly ask yourself 'why?', to understand the full waste process. But also, to know more about the underlying reasons and causes of production hiccups."

"I also believe in sharing experience, knowledge and successful cases and setups. We should support each other as this mainly is a win-win situation. And it is normally not some sort of rocket science we are talking about, but down-to-earth common sense solutions. It's just a question of having an open mind in making the production leaner."

PUT THE SOLUTIONS TO THE TEST

"In my experience it's essential to dare to test things. You can start with a minor project and see what works. This will give useful information and it will supply methods to work with ongoing optimization. And do try things that no one has tried before, it might create solutions that are applicable in other parts of production. It's quite simple; working with lean methods often provides simple solutions, that in their turn produce sustainable and financially viable results."

"I also believe in sharing experience, knowledge and successful cases and setups"

NN'S SHORT LIST OF TIPS FOR OPTIMIZATION

- Have waste management on your daily agenda (at morning meetings etc.)
- Use a helicopter view. Try to see the whole, having several projects at the same time can create synergies and values.
 Look at all parts of production, for example, to find time minimization.
- Dare to analyze your materials, get into in your containers and find out what's there. Small amounts will add up, when you see the whole picture.
- Work on key figures, goals and sub-goals. Use KPIs for material handling in the daily work (including the internal handling of waste).
- Dare to work with LEAN, including waste management.
 Always remember: waste is part of your production!