Getting started with

PRODUCTION IMPROVEMENTS

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# Improvements are investments in time

Working with production improvements are investments in future time. You spend a little time and money now and if you are successful you will gain increased production efficiency and productivity that will give you multiple in return.

That is why it takes some courage to invest in improvements.

This guide will walk through a typical improvement process and help you with some arguments on how to get access to necessary resources.

There will also be some practical tips on how to motivate employees to embrace the improvement teams.

A typical improvement process
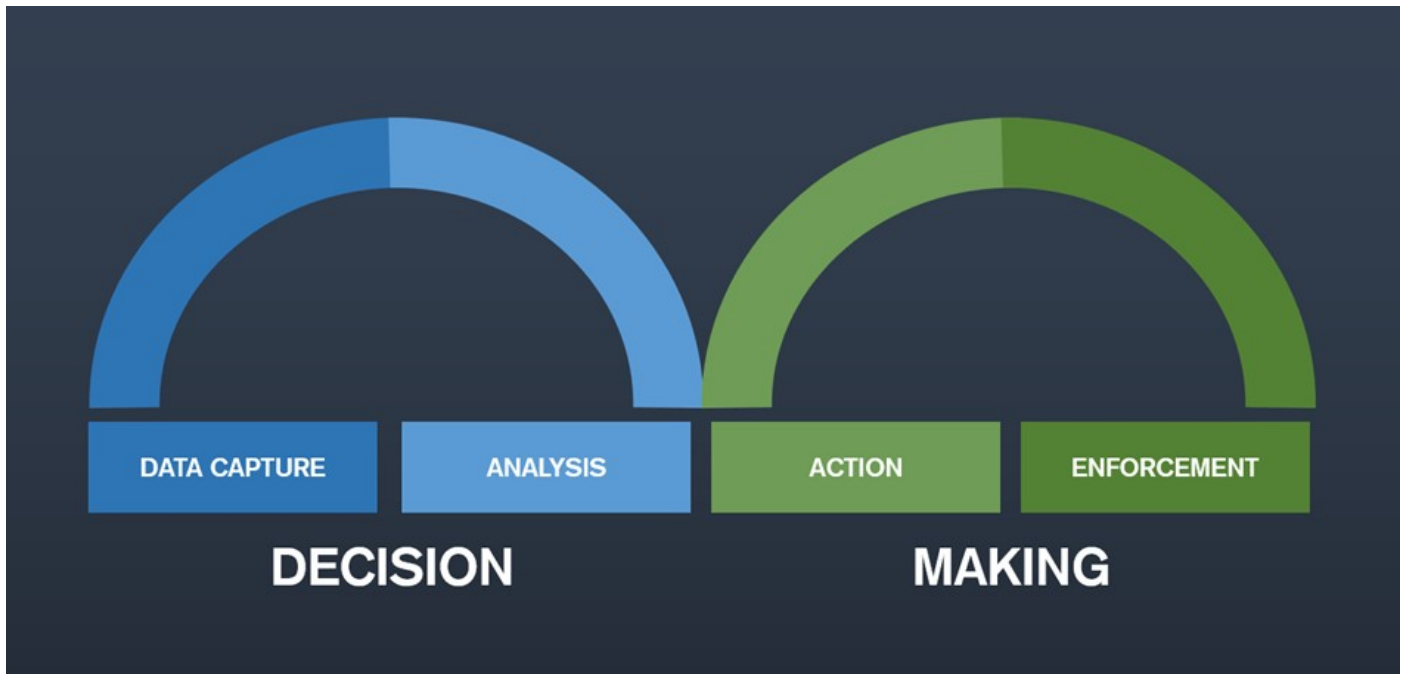
All mature production organizations have a defined improvement process. Most of them are based on the same principles. PDCA and Six Sigma's DMAIC are two well-known examples.

Decision Making is a process introduced by Good Solutions who is the developer behind RS Production. Decision Making is a process that designed for production improvements with an automatic disturbance follow up tool like RS Production.

The process is normally run in an iterative way meaning that you collect, analyze and make changes over and over again over a period of time. Who can stop a creative person from new analysis and tests while still following up the effects from the previous actions.

Step 1 - Data capture

The data capture phase is about tracking efficiency losses. With RS Production installed on all your key equipment you will spend much less time (both man hours and calendar time) when you decide that you need to improve efficiency on a specific resource.

The data capture phase is finished when you have enough data to describe a typical process. Depending on the product mix and the variation between different articles, this can be anything from a few days and up.

Step 2 - Analysis

When you have RS Production up and running on all key equipment, you can really take a shortcut directly to analysis as you have an ever ongoing data capture.

The analysis phase is where you seek for trends and patterns in your production process. This is where RS Productions analysis tool comes into the picture. By grouping, sorting and ordering production and loss data in all possible combinations RS Production will help you to find possible improvement areas.

In the analysis phase RS Production can be seen as clue maker and you will need to work with the root cause analysis tools like Ishikawa's fishbone diagram and 5 Why.

The analysis phase is ready when you feel that you and the group together have a common picture of what is causing loss and disturbance in the production process.

Step 3 - Action

Now you are at a stage where you have an idea of what is causing your loss. This means that the next creative phase starts. Now you will need to set up an implementation plan and get the resources needed to implement it.

This means that you might need to do investments, layout changes or do changes in other processes?

In any case you will need to sell your idea to management and colleges and this is where you really will need facts and RS Production can be a great help here. By showing how many hours per week or units per day you will improve by removing a specific problem you can motivate your plan for both management, finance and the rest of the group.

In the action phase you take on two different approaches.

You can either decide to solve the problems that are easiest to fix or you can go for the problems that eats the most machine time.

Going for the easiest ones will give you quick return on your investments. You will not take huge steps but you will have improvements to celebrate already the the first days or weeks. This is a great method if you want to win engagement from people on the shop floor.
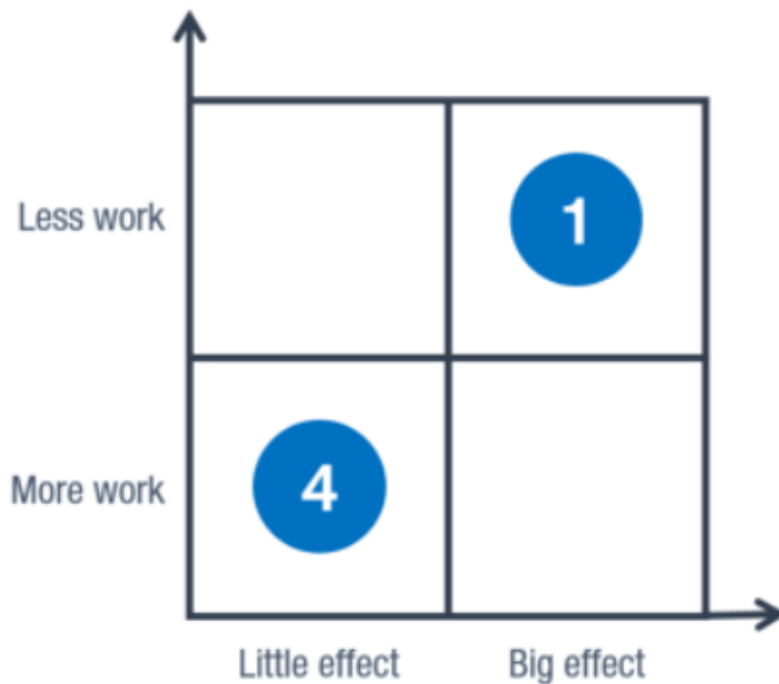
In the action phase you need to prioritize the disturbances and the actions.

The simple matrix above is a great tool to use. The X-axis describes the size of the disturbance and the Y-axis describes the amount of time and resources you need to spend to make the improvement.

Obviously, you will want to start in the upper right corner.

After that you can either decide to solve the problems that are easiest to fix or you can go for the problems that eats the most machine time.

Going for the easiest ones will give you quick return on your investments. You will not take huge steps but you will have improvements to celebrate already the the first days or weeks. This is a great method if you want to win engagement from people on the shop floor.

Step 4 - Enforcement

The actual implementation of the improvements can sometimes be phasethat takes the most calendar time.

As this is a not so creative part of the process it is often that the group starts this phase but fails to take it all the way.

This is a big risk as you will lose a lot of the improvement potential if you lack the endurance to go the distance.

This is where you will need a strong project manager who can make sure that even the last tile is in place.

What can ruin the process?

From our experience, the most common for the failure to establish autonomous improvement teams is that you depend too much on one or two leaders to do all the work.

If (or rather when) a key person leaves of one or another reason, the whole improvement process will fall apart.

If you want this to really work every day of the week, year after year – you will need to leave responsibility to the people at the shop floor and trust in their ability to succeed.

This can be easy to say but hard to establish and it is definitely not made over a day. This is a question of culture, trust and responsibilities.

A few hints to involve people

- Involve people from the shop floor already in the data collection phase

- Let the group do the analysis. Teach them the necessary improvement tools

- Let the group present a plan. If it is good, give them the budget and time needed to implement it

- Follow the improvements daily and celebrate when the targets are reached

- Announce the good examples to gain motivation and ownership

- Run only a few focus groups at the same time – don't start more than you have time to finish with good quality.

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