File name: Visual management OpEX webinar _ Invest NI.mp4

Moderator questions in Bold, Respondents in Regular text.

KEY: **Unable to decipher** = (inaudible + timecode), **Phonetic spelling** (ph) + timecode), **Missed word** = (mw + timecode), **Talking over each other** = (talking over each other + timecode).

Catherine Boyle: This webinar is about creating a visual workplace through the use of visual management tools. My name is Catherine Boyle and I work for Invest Northern Ireland as an operational excellence coach. The operational excellence team are trained coaches with numerous years of business experience across a wide range of sectors and sizes of companies. We work with Northern Ireland businesses to improve their productivity, profitability and competitiveness. If you've any queries or you want some more information about the support that we offer, then please send your request through to opexquery@investni.com. During the session I'll discuss the benefits of using visual management in your business. I'll also talk about how to make the condition of your processes obvious at a glance and how to improve two way communication of targets, expectations and issues using daily activity management boards. Visual management is a way to visually communicate expectations, standards, performance and problems in a way that requires little or no prior training to interpret. It links the measures of success and value to the daily activity of the team. Ask yourself these questions, how do you or your people know if it's been a good day? How do your people know what's expected? How do you know what the problems and issues are?

How do you get your people involved in daily improvement. If you're not sure of the answers to any of these questions, then implementation of visual management systems could be extremely beneficial to your business. So, how do you know what you need to improve in your business processes? Before you make any changes, you need to know where you are now, in other words, what's the current condition. If you define a problem as a gap between where you are and where you want to be, then how do we know what the gap actually is? That's where visual management comes in. It helps you to identify the areas for improvement or the gaps in your business. Visual management drives open two way communication and facilitates smooth information flow. The expectations and targets required by the business are made clear, standards are visible and easy to follow so everyone knows what's expected from them. On the other hand, the current condition of the process is obvious, the flow of information is smooth, waste is exposed and issues are flagged through open and clear communication. According to published research, implementation of an effective visual management system can lead to productivity gains of 15% on average through defect reduction, more efficient use of floor space, improved flow of information and materials through the process among other things.

Across our team we've seen similar and ever greater improvements in productivity, achieved by a wide range of business sizes and sectors across Northern Ireland through the implementation of visual management systems. There are three types of visual management tools. Visual controls guide the action

of employees, for example, do and don't signs and floor markings. Visual displays make employees aware of related data and information through the use of charts, photos, graphs, etc. Visual metrics enable everyone to see how we are performing and highlights the variances from the standards. So, let's look at these three visual management tools in more detail, starting with visual controls. Visual controls are used to manage or control processes by making it obvious if things are going well or need attention. They require an immediate response to deviation, which leads to quicker resolution of abnormalities. Communication is clear and consistent, the use of visual controls gives shared ownership of performance, leading to quicker resolution of problems as they prompt decision making at a working level. Here's some common examples of visual controls, what do you think of when you see these and what response do they prompt? Visual controls should be clear and simple and it should be immediately obvious what response is required.

Here's some more examples of visual controls, colour coded gauge labelling, so anyone can tell at a glance if the setting is within the recommended range without any technical knowledge of the equipment. Using shadowing for tools or assembly kits means you can quickly see if something is missing. The red and green visual guides here helps quick detection of a level which is too high or too low. In these examples the oil level and the drive tension. Traffic light colour coding of inventory levels based on usage and product lead times to prompt reordering and reduce stock outs. Foot printing, colour coding and striping are simple visual controls which are often used for floor marking. These visual controls are called Andon lights, and they're used to alert personnel about when and where there's a deviation or a non-compliance. They're often used in busy production areas and call centres, so it's clear at a glance how the process is performing against the target and to flag issues as they happen. The second type of visual management tools are visual displays. These are used to share important information and should be visually it's to support processes. The aim of using these is to inform people in the work area how to follow a standard procedure. They should give clear information on what to do or what to pay attention to.

In order to be useful, visual displays need to be made easy to understand through the use of symbols and colours. It should be clear at a glance what the current status is and they should engage the viewers attention rather than losing them in the details. Here's some examples of visual displays. T card systems are handy tools which act as a visual reminder of tasks that need to be completed on a regular basis. For example, hourly equipment checks, end of shift cleaning tasks and monthly deep cleans etc. The T shaped cards are green on one side and red on the other. Once a task has been completed, the card for that task is turned around so the green side is facing outwards. Photos, diagrams and symbols using visuals of what is and what's not acceptable should be used in work instructions to make it quick and easy to understand how to follow the standard process. Using red and green colour coding on hour by hour status boards makes it easy to tell at a glance what the condition is the process is and where the issues are. Keeping visual displays as simple as possible makes them quicker and easier to read with the minimum amount of training. The third type of visual management tools are visual metrics. This type of tool facilitates communication, visual metrics will show any gaps in performance against targets to help identify areas that need improvement.

They're used to show data on the businesses key performance indicators, or KPIs, which can be under the headings of safety, quality, delivery, cost, people, adherence to schedule or whatever is relevant to the business. Graphs and charts can be used to display data by hour, week, shift, month etc. to help highlight any trends. The type of visual tools which can be used to collect and analyse this data are described in more detail in the Invest NI training video on the seven quality tools. A daily activity management board is a visual tool which is a focal point for team meetings. During the quick meeting, the team should discuss each section of the board in turn. Its purpose is to focus the team on the current priorities and guide them to action. It's a visual score card for the team's progress against targets and can be used in all departments throughout the business. The daily activity management board should cover the key metrics which are important for the team, under the headings of safety, quality, cost, delivery, people etc. However, it's important to note that the KPIs on the teams board should be ones that they can directly impact at their level. For example, under the heading of quality, the sales team cannot affect the amount of re-work due to machine breakdowns, but they can have an impact on the number of right first time sales quotes that are sent to customers.

The three types of visual management tools, that is visual controls, visual displays and visual metrics should be used on a daily activity management board to make it easy to follow and clear what needs to be done. Here are some examples of the types of things that you could have on your board. KPI daily status using letters or symbols for each category of KPI, for example safety, quality, delivery etc. These are divided into 31 segments to represent the days of the month. If we hit our target for the day, then the segment is coloured green and if not, then it's coloured red, more information is gathered on the issue and an action is recorded if appropriate. A live Pareto chart can be use to gather more information on any issues that arise over the course of the month. The most common causes are listed across the bottom of the chart and the Y axis shows the impact on the business which can be measured as downtime, lost parts, money etc. Each time an issue arises, the impact of that occurrence is added to the bar for the relevant cause. At the end of the month, the live Pareto will show which of the categories of causes had the biggest negative impact on the business in terms of cost, downtime or lost parts. For example, there may have been a couple of prolonged breakdowns during the month, but there can also be an issue which delays the start up or causes numerous short stoppages every single day.

When all of these minor losses are added up over the course of the month, they can often be more costly to the business than the one or two prolonged breakdowns. The live Pareto is a simple way to capture data to show the team where they should focus their energy in order to give the biggest benefit. This issue can then be worked on by the team as a process improvement project. Trend charts can be used to monitor performance over the course of the month or the year. It's important to have a live-action register on the daily activity management board with names and target completion dates so that everyone knows that issues are being worked on. Record the details of the issue under case, then note the cause and any countermeasures being implemented along with the details of those responsible for each. This way the actions will make more sense to anyone reading them after the meeting. Root cause analysis and the progress are outcomes of relevant process improvement projects and problem-solving activity, can also be

displayed on the daily activity management board. This is also a good place to include details of any learnings from other teams problem-solving activities, which can be applied to this area. For more information on problem-solving, there's an Invest NI webinar video on how to use the A3 practical problem-solving method. The daily activity management board can also include an area for the team to make improvement suggestions.

Including the status of each suggestion by way of feedback. These can be discussed during the meeting and prioritised by the team. A skills or training matrix can be handy to have readily accessible on the board to help organise cover in the event of absences, as well as to identify training needs. Here are some photographs of daily activity management boards and daily morning meetings taking place. If you want more information on how to run these meetings, and what to discuss at the daily meetings at each level in the business in order to meet the businesses targets and objectives, there's also an Invest NI webinar video on daily management routines. This is the daily meeting board in a local company in Northern Ireland. The team bring along to the meeting examples of issues they've been having so that all of the team are aware of the problem and know what they need to look out for. If they've any time left at the end of the short meeting, the team can also discuss potential countermeasures to prevent reoccurrence of the issue. If you look more closely at the daily activity management board, you can see some of the important components of this board. The meeting time and duration, there's even a clock directly above the board to monitor adherence to the schedule.

The action register is kept live and includes a percentage completion of the actions. There's a log of customer issues which is also updated daily. Here's an information-sharing area where the team share good practice and areas which need to be focused on. There's a common misconception that daily activity management boards and meetings are just for manufacturing. They can be used in all departments across the business. This is across functional support team within the Northern Ireland Housing Executive. Co-locating the project team instead of them working separately in different departments reduces the time to close out a case by 25%. Once a team have merged into the same area, they then use a daily activity management board to guide and structure their daily meetings. They identified and solved problems as a team which lead to a further 25% reduction in the case closeout time. So, how do you actually go about implementing visual management in your process? Start by choosing a pilot area and identify where you could benefit from using visual controls, displays and metrics to improve the process. Develop a list of relevant key performance indicators, or KPIs which the team can impact and agree a realistic target for each. Decide what other information you want to have in your daily activity management board and design the layout.

Decide who from the area should attend the daily meeting, choose the best time of day to hold your daily meetings and then just start meeting, going through each of the elements of the board one at a time. At the end of each month select the priority problem-solving project for the team to work on, based on the data collected over the course of the previous month. Regularly review the format of the meeting and the contents of the daily activity management board and implement any necessary improvements you feel

would be beneficial. So, just to recap on what we've covered in this session. Visual management can be used to improve two-way communication of expectations and targets, as well as performance and issues. Daily activity management boards are a visual tool to guide teams to action, make decisions and focus activity on meeting the businesses targets. Implementation of an effective visual management system can increase productivity by 15% on average. If you want more information on anything that's been discussed during the session, please send your request through to opexquery@investni.com and thank you for listening.