

## **How will Tetra Pak adapt their Risk Management system when changing from 11 packaging lines to 1 modular packaging line?**

*Tetra Pak is undertaking an enormous reorganisation! They are changing from approximately 11 packaging lines to 1 ultimate packaging line, the "Next Generation Packaging Line" (NGPL). Do they need to adapt more than they think?*

Tetra Pak is today one of the largest packaging companies with their roughly 23 000 employees. They have as it is 11 different packages that they provide. These are made in 11 different packaging lines, which all require spare parts, competence on how to operate each one, and development done for each packaging line separately. In addition to this, Tetra Pak offers certain customisations, which leads to that Tetra Pak currently must have a vast competence on the different packaging lines, as well as a huge warehouse for storing spare part and a high ongoing cost for research and development.

Tetra Pak is on the verge of exchanging these packaging lines to 1 single complete line (NGPL). The NGPL will be modular, which means that the parts of the packaging lines are changeable to produce different packages depending on what modules that are in use.

There is a lot of change needed to be done at Tetra Pak to be able to successfully complete this adaptation, and a lot of questions that need to be answered.

How will the responsibility look like in the future, when the system they are using now with 1 person responsible for 1 packaging line/package when they instead of 11 packaging lines/packages and corresponding responsible have 1 packaging line but still 11 packages? Another aspect is how to do the risk assessment when the packages will be compiled of modules instead of being created in one piece. These are question that I will answer in this summary.

A study in collaboration with Tetra Pak has been made to determine the risks with adapting to a new packaging system. Since the system is not yet created, this has been done by a literature study as well as interviews with knowledgeable people at Tetra Pak. When doing the literature study, the expertise of Tetra Pak as well as their consultant within modular design was used to obtain the best reading material. After the study was done, Tetra Pak was described by the author by 4 factors that were chosen as the most important to analyse. These factors were chosen based upon the literature study and was among other about the responsibility over the packaging lines within Tetra Pak. Tetra Pak was then described by using the same 4 parameters, but after the adaptation to a modular packaging line. The results were then compared and analysed to obtain the more important changes within the organisation and within what parameters the current risk management would yield in a misfit if kept as it is today.

As mentioned in the introduction, one of the more important discoveries was that the structure of who and how a person was responsible for a package would need to be altered. There needs to be many people in charge, so just switching to having 1 person responsible for everything was not a valid option. However, one way to do it would be to have 1 person responsible for each module instead. By doing this, many of the other issues that were discovered were also facilitated. For example, doing a risk analysis for all the different constellation of modules would take a lot of time. However, if one risk analysis would be done for each module and that analysis would be used in all the constellations, the total amount of risk analysis needed would be greatly reduced. Both suggestions are direct advice to Tetra Pak on how to facilitate their adaptation. In addition to these suggestions, there were multiple objectives that by switching to a modular production process were greatly facilitated, e.g. the costs of research and development as well as the risk of losing irreplaceable competence.