## **ENTERPRISE RESOURCE PLANNING (ERP)**

Six Sigma Academy Amsterdam, 2021 ©

## Introduction

It's difficult for some of you to imagine, but there was a time without digital databases, without Microsoft Excel and without internet. The roots of Kanban can be traced back to the first half of the 20<sup>th</sup> century. At that time, Kanban had many more uses than it has today. Here are some the ways that Kanban cards (similar to the one that you saw in the video) were used.

- To keep track of demand.
- To keep track of work in progress (unfinished goods).
- To keep track of level of inventory/raw materials.
- To signal to others all the previous levels.

## **ERP Systems**

These days, most medium sized and large companies use some type of ERP system that makes these cards obsolete. There are still companies that use these cards, but they are a tiny minority. What is an ERP system and how has it replaced Kanban cards?

In the most simple terms, ERP systems collect and organize data for an organization in one central digital location. Before ERP systems, companies would have so-called 'islands of information' such as:

- Data about customers.
- Data about human resources.
- Data about the number of finished goods.
- Data about levels of raw materials.
- Data about defects.
- Etc.

But this huge pile of information was not connected to each other. That is why we state that these separate collections of information were 'islands of information.'

In that era, Kanban cards were quite handy. For instance, in the old days, Kanban cards were used to signal to supervisors that there was a need to order fresh supplies of screws, nails or sheets of metal. Today however, this is automated. The same device that aids in manufacturing, can keep track of exactly how many units are produced and how many screws, nails and sheets of metal have been used in that process and how many are still available. It is programmed to order new supplies when a critical level of nails, sheets of metal and screws is reached.

We do not go much deeper than that in ERP, because ERP is not part of Lean or Six Sigma. We just thought it would be worthwhile to at least explain to you what replaced Kanban cards. Finally, please note that there is no such thing as **the** ERP system. There exist many ERP systems, supplied by various companies and often designed especially for an industry. They can be used in both manufacturing and services.