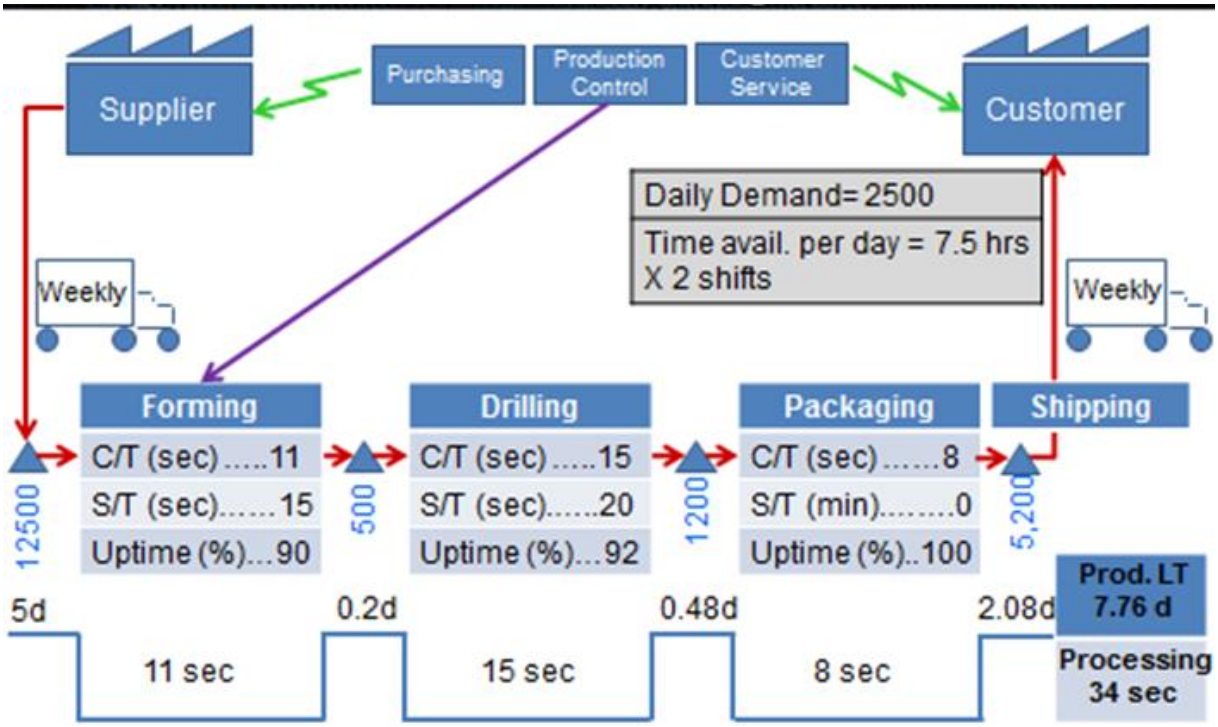
Six Sigma Academy Amsterdam 2016 ©

Exercise Topic: Value Stream Mapping



Exercise 1: Have a look at the VSM above Between drilling and packaging there is a time indication of 0.48 days. Where does that stem from?

Exercise 2: At the bottom right, you see that the processing time is 34 seconds. How do we arrive at that value?

Exercise 3: Between drilling and packaging, we see an inventory of 1200 units. How do we arrive at this value?

Exercise 4: Why is there an inventory of 500 between forming and drilling on the one hand and 1,200 units between drilling and packaging on the other hand? Should they not both be the same?

See next page for answers

Answers:

Answers exercise 1: At that point, there are 1200 units of inventory (triangles typically show inventory or work in progress). Each unit of inventory can be turned into a finished product. We simply count the number of inventory. It is thus not calculated. We know that daily demand is 2,500 units and as such, we assume that the invenry will wait 1200/2500 = 0.48 days before it is depleted.

Answer exercise 2: The cycle time of forming is 11 sec. The cycle time of drilling is 15 sec. The cycle time of packaging is 8 sec. Cycle time equals processing time. When we add all of them up, we get total processing time which is 34 sec.

Answer exercise 3: We simply count them. Do not make the mistake of thinking that these are all calculated values. Much of a VSM is simply observed and written down. The point of the VSM is to show value streams (or lack of it because of inefficiencies or waste) by providing a snapshot of the situation. It is like taking a picture. When you take a picture of a process, you do not question why things are what they are. You simply take the picture. Afterwards, you start evaluating the snapshot and contemplate on improving things.

Answer exercise 4: These values are simply what you hypothetically observed when you walked around and observed the process. As such, there is no logic behind them. These values are simply what you observed. Just like it was stated in the previous answer: Much of a VSM is simply observed and written down. The point of the VSM is to show value streams (or lack of it because of inefficiencies or waste) by providing a snapshot of the situation. It is like taking a picture. When you take a picture of a process, you do not question why things are what they are. You simply take the picture. Afterwards, you start evaluating the picture and ask questions and offer suggestions for a better flow of value (by eliminating waste).