Value Stream Mapping (VSM) is a lean manufacturing technique to analyse, design, and manage the flow of materials and information required to bring a product to a customer. It uses a system of standard symbols to depict various work **streams** and information flows.

Runners, Repeaters & Strangers

Customer demands for all products are ascertained and a Pareto of the products with respect to customer demand is made. 20% of products which contribute to 80% of the production volume are called **Runner** products, 80-95% of the production volume are called **Repeaters** and the balance 5% are called **Strangers**.

Designing Product Families

A **Product x Process Matrix** is made. Products which pass through similar processes and equipment are grouped into product families. Value Stream Mapping is done for one such Product Family.

Preparing the Current State VSM

The Current State VSM is made for one Product Family. The Current State VSM is prepared with the real data from the Gemba. The current customer demand is taken and all other data like RM, WIP, and FG inventories, cycle times, changeover times, operators used etc. are put into the Current State Map. The Current State Map will be analysed to separate the processes that will be batched and the processes that could be with continuous flow through calibrated **Super Markets**.

Analysing the Total Work Content

The continuous flow processes need to be connected to produce continuous flow along the Value Stream - downstream of the supermarket. To create a Connected Flow the processes could be connected to form a cellular layout. For this we need to calculate the **Total Work Content** and the **Operator Manning** of the Cell.

Designing the Future State Map

The Future State VSM will form the **strategy** to define the future state of the organization. The strategy could be stratified into **Short term**, **Medium term** and **Long-term** strategies.

The Value Stream Plan

The **GAP** between the Current State and the desired Future State VSM for the **Value Stream Plan**. The Value Stream Plan sets the **Direction [Hoshin]** for the organization. This Hoshin is converted into the **Process Kaizens** at the Gemba level to achieve the Hoshin. Thus, the whole organization gets involved the improvement process.