

Value Stream Mapping

Getting Started









Why VSM?



VSM Principles



Current VSM



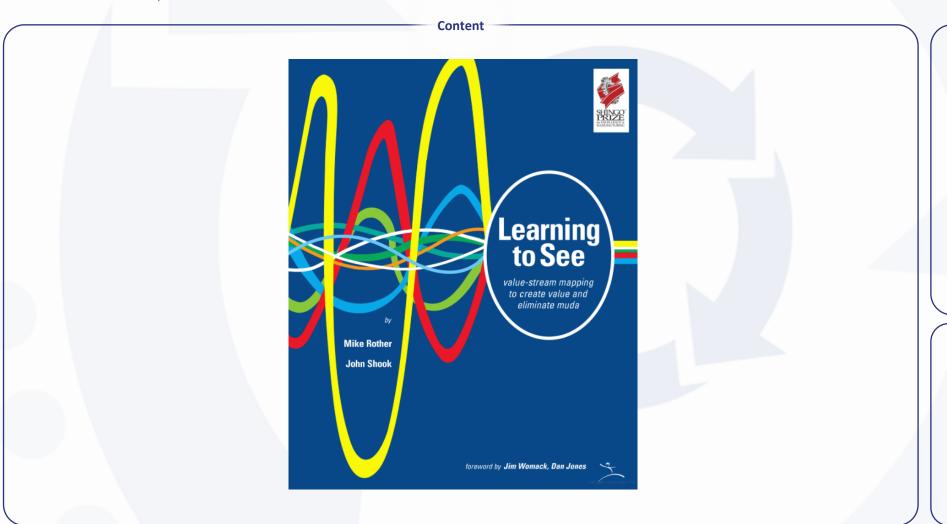
Lean Guidelines



Future VSM



Course Material Source



Good to Know

- Lean Enterprise Institute, producers of this book is the first entity to coin the word "Lean", referring to Toyota's Philosophy of Management.
- A good reference for service oriented VSM:
 - Value Stream Mapping: How to Visualize Work and Align Leadership for Organizational Transformation, Book by Karen Martin and Mike Osterling

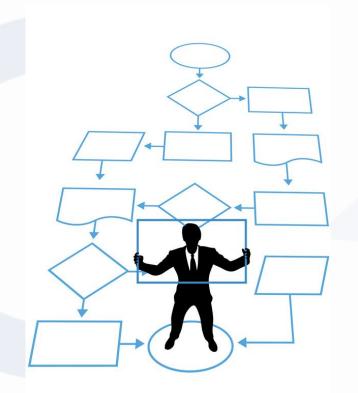




What is Value Stream Mapping

Content

- A value stream is **all the actions** (both value added and non-value added) currently **required to bring a product** through the main flows essential to every product.
- Taking a value stream perspective means working on the big picture, not just individual processes, and improving the whole, not just optimizing the parts.
- A good level at which to begin your mapping and lean implementation effort is "door-to-door" production flow inside a plant, including shipment to the plant's customer and delivery of supplied parts and material.



Good to Know

 At Toyota, the method called "Value Stream Mapping"—is known as "Material and Information Flow Mapping."



What is the problem with "point improvements"

Content

• Point improvements: searching for wastes "muda" and doing projects to eliminate them

Pros

- Quick Wins
- Buy-in
- Learning experience

Cons

- Value flow comes to a halt in the swamp of inventories and detours ahead of the next downstream step.
- Doesn't guarantee bottom line improvements or customer satisfaction
- **Isolated victories** over muda, some of them quite dramatic, which **fail to improve** the whole.

Good to Know

 Kaizen efforts, or any lean manufacturing technique, are most effective when applied strategically within the context of building a lean value stream.





Why Value Stream Mapping is an Essential Tool?

Content

- It helps visualizing the whole flow (Material + Information)
- Helps identifying **key waste**s and their sources
- Provides **common language** to discuss manufacturing processes
- It ties together **lean concepts and techniques**, which helps you avoid "**ad-hoc improvement**"
- It forms the basis of an **implementation plan**. By helping you design how the whole door-to-door flow should operate.

Good to Know

 What we mean by value stream mapping is simple: Follow a product's production path from customer to supplier, and carefully draw a visual representation of every process in the material and information flow.

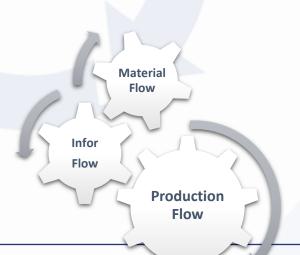




Material and Information Flows

Content

- Within the production flow, the **movement of material** through the factory is the flow that usually comes to mind.
- But there is another flow—of information—that tells each process what to make or do next. Material and information flow are two sides of the same coin.
- You must map both of them.



Good to Know

 In lean manufacturing the information flow is treated with just as much importance as the material flow.



Selecting a Product Family

Content

- A family is a **group of products** that pass through **similar processing steps** and over **common equipment** in your downstream processes.
- Write down clearly what your selected product family is, how many different finished part numbers there are in the family, and the demand patterns (when, how much)

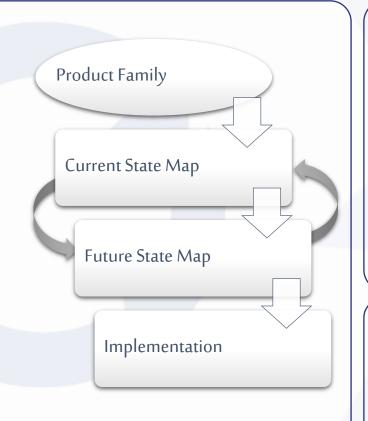
Good to Know

 Identify your product families from the customer end of the value stream.



Selecting a Product Family

- One point to understand clearly before starting is the need to focus on one product family.
- Unless you have a small, one-product plant, drawing all your product flows on one map is too complicated.
- Value stream mapping means walking and drawing the processing steps (material and information) for one product family from door to door in your plant.



Good to Know

 Identify your product families from the customer end of the value stream.





Selecting a Product Family

• If your product mix is complicated you can create a matrix with assembly steps and equipment on one axis, and your products on the other axis

		ASSEMBLY STEPS & EQUIPMENT							
		1	2	3	4	5	6	7	8
PRODUCTS	A	X	X	X		X	X		
	В	X	X	X	X	X	X		
	С	X	X	X		X	X	X	
	D		X	X	X			X	X
	E		X	X	X			X	X
	F	0		0		0	0	0	
	G	0		0		0	0	0	

Good to Know

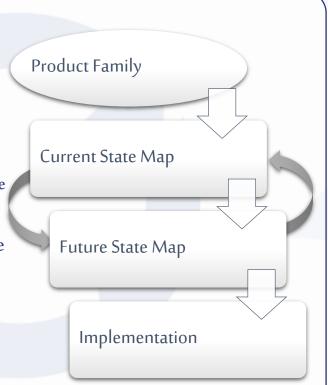
 Identify your product families from the customer end of the value stream.



Using the Mapping Tool – Key Tips

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- Value-stream mapping initially follows the steps shown at right.
- A current state without a future state is not much use. The future-state map is most important.
- Arrows indicate:
 - Future state ideas will come up as you are mapping the current state.
 - Likewise, drawing your future state will often point out important current-state information you have overlooked.
- Then, as your future state becomes reality, a new future-state map should be drawn.
- In about two days you should have a future-state map drawn to the point where implementation can begin.
- Don't get hung up trying to make all the details on your future-state map perfectly correct.
- Fine-tune your future-state map as implementation progresses.



Good to Know

 As with any new language, the best way to learn mapping is to practice it formally at first, until you can use it instinctively.

