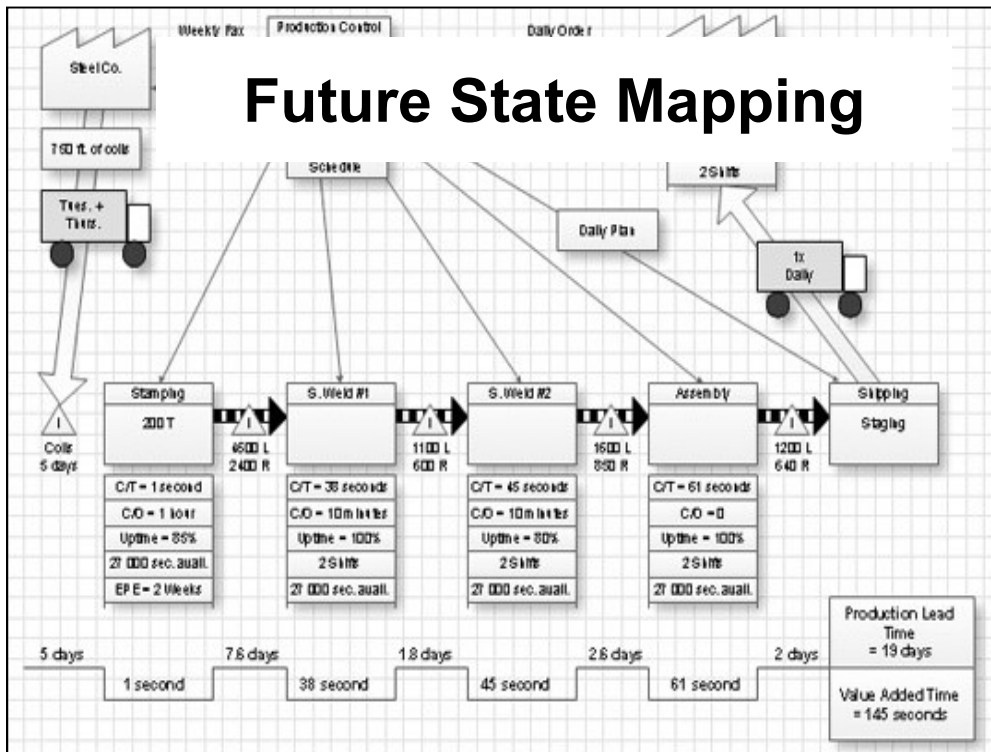


Future State Mapping



This is a quick overview of creating a current state value stream map.

It is designed to prepare you for what will be coming in your kaizen blitz event.



You will need to create your future state map, if that is not yet done.

Don't Get Carried Away

“Any intelligent fool can make things bigger and more complex...

...It takes a touch of genius, and a lot of courage to move in the opposite direction.”

- Albert Einstein

21 Steps to Success



Lean is systematic and creating a value stream map is also systematic.

There are 21 steps.

Steps 1 to 8



The first eight steps of creating a future state involve filling out that value stream definition form we used for defining the current state.

1. Identify Value Stream



Is the name still the same for the future state?

2. Assemble the Team



Do you need different team members for future state?

3. Identify Boundaries



Are they still the same?

You may have a better feel for the connections with other value streams. No gaps allowed!

But also, watch out for scope creep.

4. Identify Owners & Participants

- ✓ Value Stream Manager
- ✓ Functional Managers
- ✓ Participants



Who are the key people for this value stream.

This is probably not the same list of people who are on the project team.

5. Identify Customers & Outputs

- ✓ **External**
- ✓ **Internal**
- ✓ **Who gets the outputs?**
- ✓ **What are the outputs?**



You probably found a few more customers when you created the current state. Maybe you found reports going out that should be eliminated; you need fewer customers!

Will the volume be changing?

Many projects have involved preparing a value stream for a new level of business.

Volvo Power Transmission = ramping up the number of engines per day by 33%.

6. Specify Value

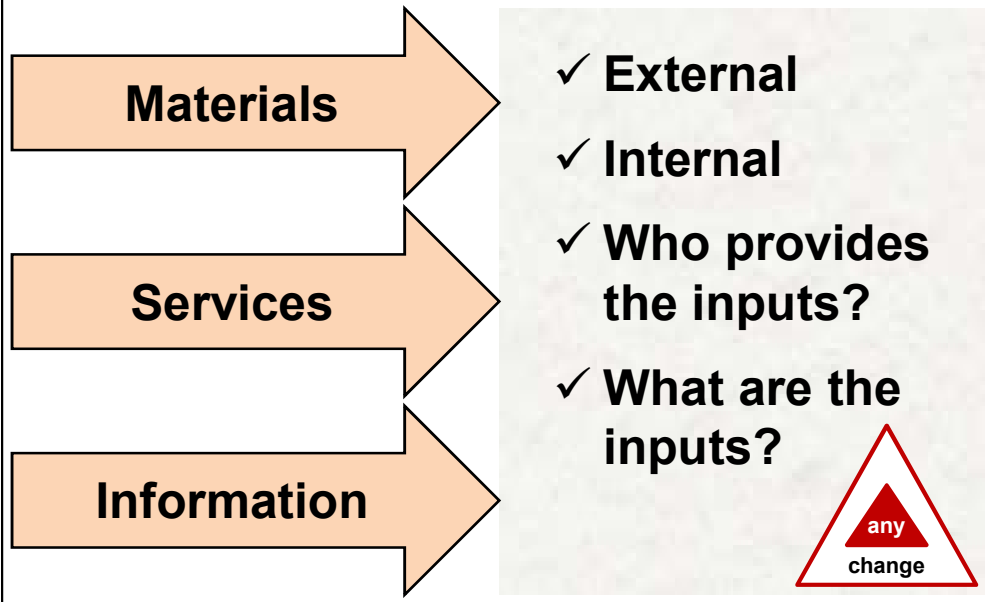


For the future state, you need to meet and talk with your customers.

It was OK to speculate for the current state, but you must do better for the future state.

This is a big difference from current state mapping.

7. Identify Suppliers & Inputs



You probably found a few more suppliers when you created the current state

8. Other Stakeholders

Technology

Regulations

Value

- ✓ Who supports the technology and equipment?
- ✓ Who monitors regulations and corporate policy?
- ✓ Who values what is done?



Steps 1 to 8



9. Executive Sponsor Approval



Why do you want approval at this point?

10. Best Practices



Get educated on best practices.

What should the future state look like? You cannot just assume that the people on your team know what needs to be done.

This is a big difference from current state mapping.

11. Emerging Trends



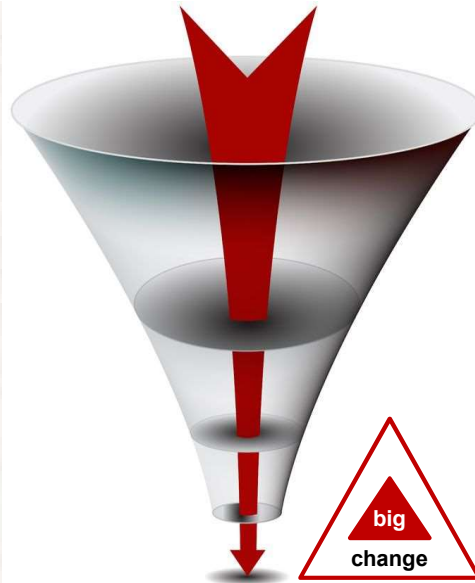
Beyond best practices that many are already doing, you also want to look at emerging trends; it's about emerging trend for the value stream you are about to improve.

There may be new techniques, new materials, new technology and all sorts of trends available that can help you improve your process.

This is a big difference from current state mapping.

12. Identify Improvement Ideas

- ✓ **What's working for others?**
- ✓ **Any stakeholder suggestions?**
- ✓ **Create a best practice!**
- ✓ **Start an emerging trend!**



Gather your list of best practices, emerging trends, and other ideas.

Look at what is working for others.

Get ideas and suggestions from the stakeholders.

If you find a better way that is new to the world, then go ahead and create a best practice or an emerging trend.

Take the long list and select which ones you want to include. You can't do everything.

What is reasonable in term of cost and amount of change?

This is a big difference from current state mapping.

13. Choose Approach



14. Choose Your Symbols

Value stream mapping

Process	Customer / Supplier	Inventory	External Shipment	Push	Shipment Arrow
Go See Production	Electronic Information	Production Control	Data Table	Timeline segment	Timeline total
Supermarket	Safety Stock	Signal Kanban	Withdrawal Kanban	Withdrawal Batch	Production Kanban
Batch Kanban	Kanban Post	FIFO Lane	Kaizen Burst	Pull Arrow 1	Pull Arrow 2
Pull Arrow 3	Physical Pull	Sequenced Pull Ball	Load Leveling		

Stamping An internal step in the process	C/T = 4 hr C/O = 4 hrs Uptime = 50% 3 Shifts Data box for internal process steps	ABC Co. Supplier, outsourced operation, or customer	Material stores or staging location

Daily Shipment (with frequency noted)	Inventory level

Movement of goods between facilities	Push movement between internal steps	Pull movement between internal steps

Manual information flow	Electronic information

Weekly forecast Scheduling information	General location of operator	any change

You might want to add a few more symbols.

Replace inventory with supermarket.

15. Identify Big Activities



~~Some like to start at customers and work back to suppliers.~~

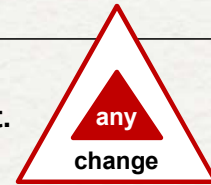
This is not always the best and sometimes it's easier to start at suppliers.

Similar to current state mapping, you want to get at the big activities.

16a. Decide What Information

- | | |
|---|--|
| <ul style="list-style-type: none">✓ Operator cycle times✓ Changeover times✓ Inventory✓ Batch sizes✓ Number of operators✓ Container sizes✓ Skills required | <ul style="list-style-type: none">✓ Available time✓ Scrap rates✓ Equipment availability✓ Method of delivery✓ Tools✓ Equipment cycle time✓ Shared resources |
|---|--|

You will be creating the future; what data will be important.



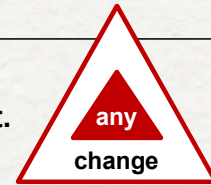
Decide what information you want to put on your future state.

You will be creating the future, so think about what data will be important.

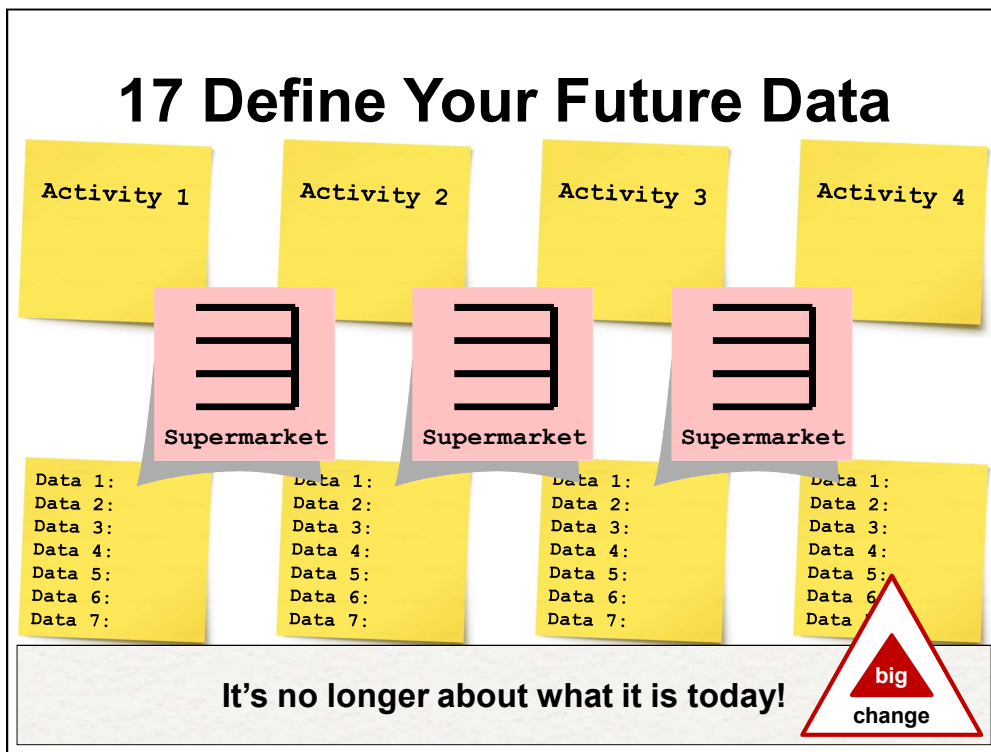
16b. Decide What Information

- | | |
|--|--|
| <ul style="list-style-type: none">✓ Number of shifts✓ Hours of operation✓ Number of products✓ Cross training✓ Operator availability✓ Approvals required✓ Defects | <ul style="list-style-type: none">✓ Reports✓ Forms✓ Software✓ Hazardous materials✓ Ergonomics✓ Variation✓ Priorities |
|--|--|

You will be creating the future; what data will be important.



Software is often a big item in terms of what you want to do in the future state. It's often not about new software; it's about getting trained on using the stuff you already have.

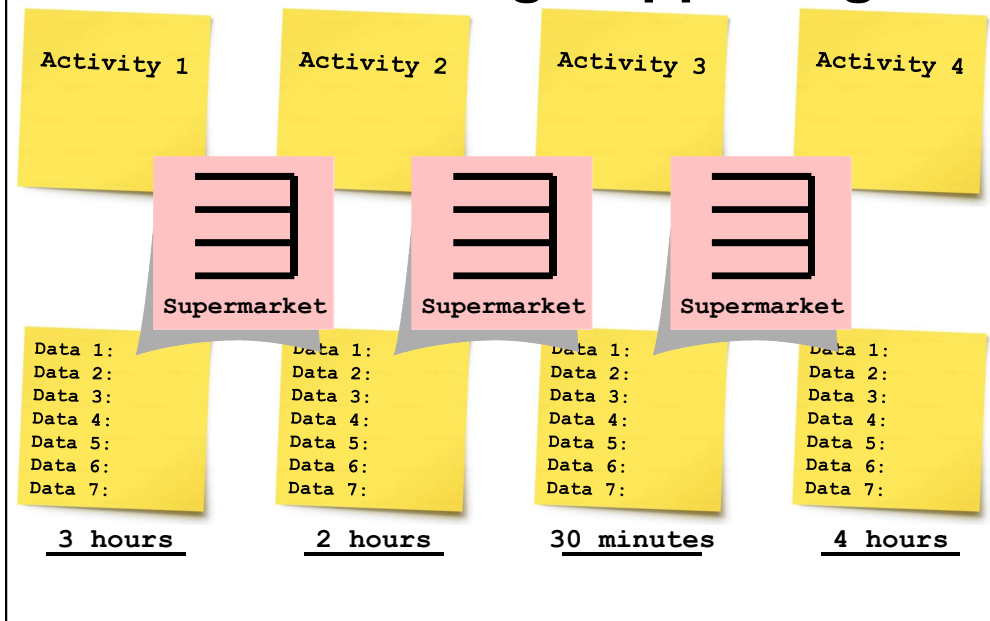


Put your data on the map.

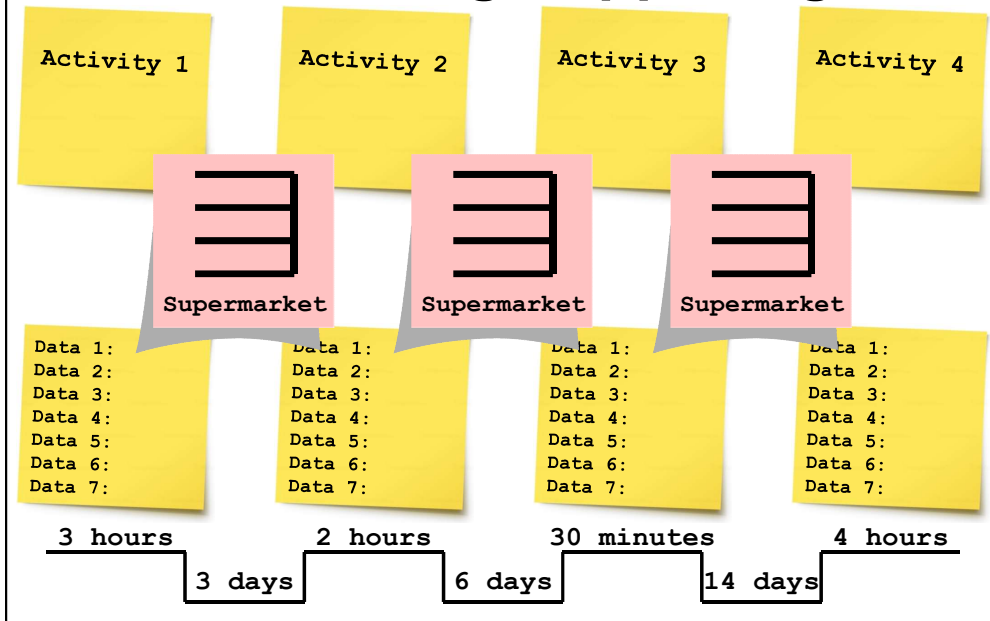
Many times, those uncontrolled piles of inventory will be changed to supermarkets or kanbans that are more controlled.

This is a big difference from current state mapping.

18. Something Happening



19. Nothing Happening



20. Validate Your Map

Is this what we
want to create?



20b. Map Created



Planning



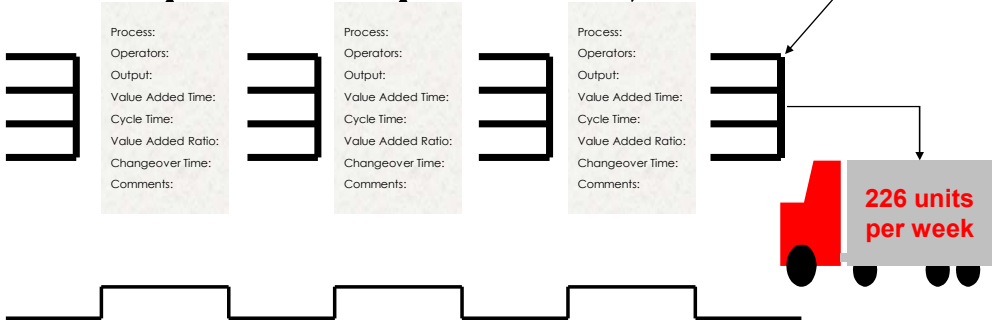
Scheduling



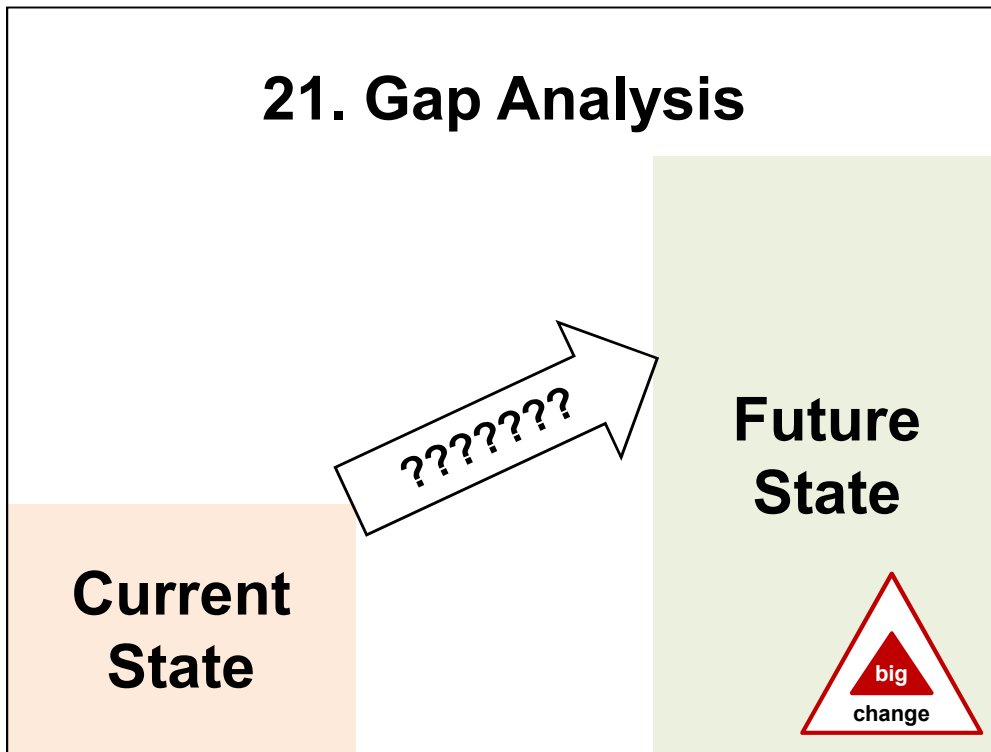
Supervisor



Customer Service



21. Gap Analysis



What are the gaps you need to close.

The current state is generally low performance and you are going to a high performance value stream with much less waste.

This is a big difference from current state mapping.

22. Gain Approval To Proceed



Future State



This is a big difference from current state mapping.

Future State: Steps 1 to 8

- Identify value stream
- Assemble the team
- Identify boundaries & scope
- Identify owners & participants
- Identify customers & outputs
- Specify value**
- Identify suppliers & inputs
- Other stakeholders

**Value
stream
definition
form**

Quickly summarize, don't waste time.

The bold red items are the significant differences between current and future state mapping.

The next three slides are just something to use as a checklist.

Future State: Steps 9 to 15

- Executive sponsor approval
- Best practices**
- Emerging trends**
- Identify improvements**
- Choose approach
- Choose your symbols
- Identify big activities

Gain approval to proceed.

The bold red items are the significant differences between current and future state mapping.

Investigate and choose what improvements you want to do.

Start mapping.

Future State: Steps 16 to 22

- Decide what information
- Define your future data**
- Something happening
- Nothing happening
- Validate your map
- Gap analysis**
- Gain approval to proceed**

Finish mapping.

The bold red items are the significant differences between current and future state mapping.

Compare with current state and create gap analysis.

Gain approval.