Row Row Row Your Boat
Down the Value Stream

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What is a Value Stream

Sequence of steps or activities that an organization uses to deliver a product or service to its customers
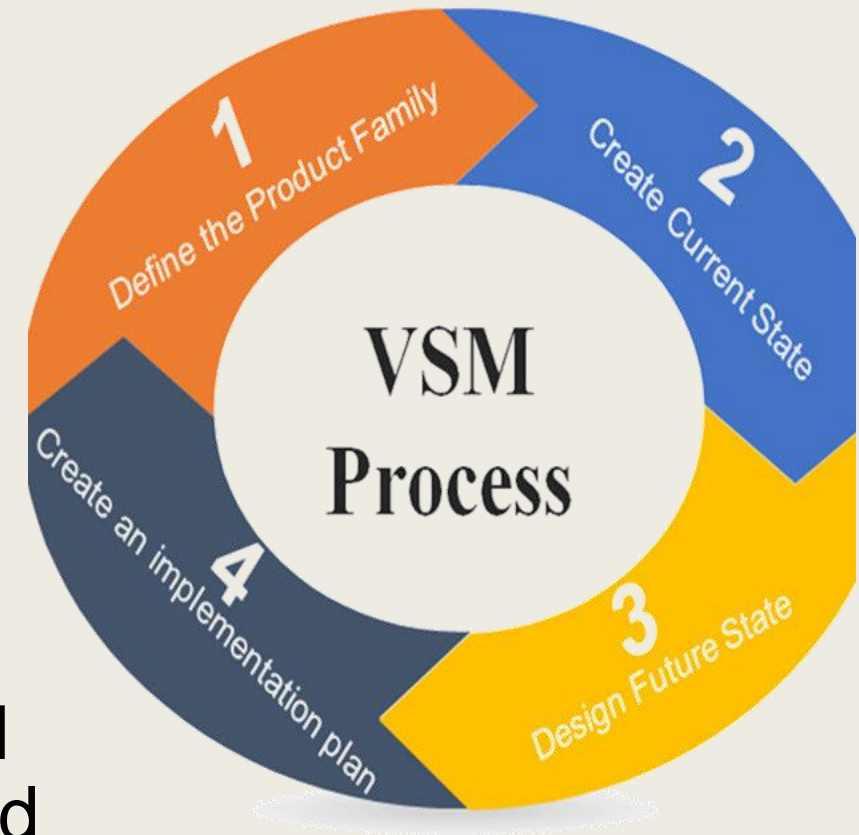
  Processes

  People

  Resources

Creating and delivering a product or service,

  from the initial concept

  to the final delivery to the customer

Identify areas where waste can be eliminated and value can be added, resulting in increased efficiency and higher customer satisfaction.

A brief history of value stream mapping

- Value stream mapping has been around for quite a while even though it's only recently being adopted by a lot of industries.

- A minor tool known within Toyota as "Material and Information Flow" mapping. But, earlier versions of this tool have been seen in the 1918 book, Installing Efficiency Methods.

- As the Lean principles spread to manufacturing industries in America, so did value stream mapping. Its popularity grew to other industries like software development, IT operations, and even marketing. The 1990 book, The Machine That Changed the World" written by James Womack, Daniel Jones, and Daniel Roos, first introduced the term ""value stream".

- The value stream was the sequence of activities an organization undertakes to deliver on a customer request.

- Value stream mapping is associated with both Lean and Six Sigma methodologies as they emphasize on the elimination of wastes.
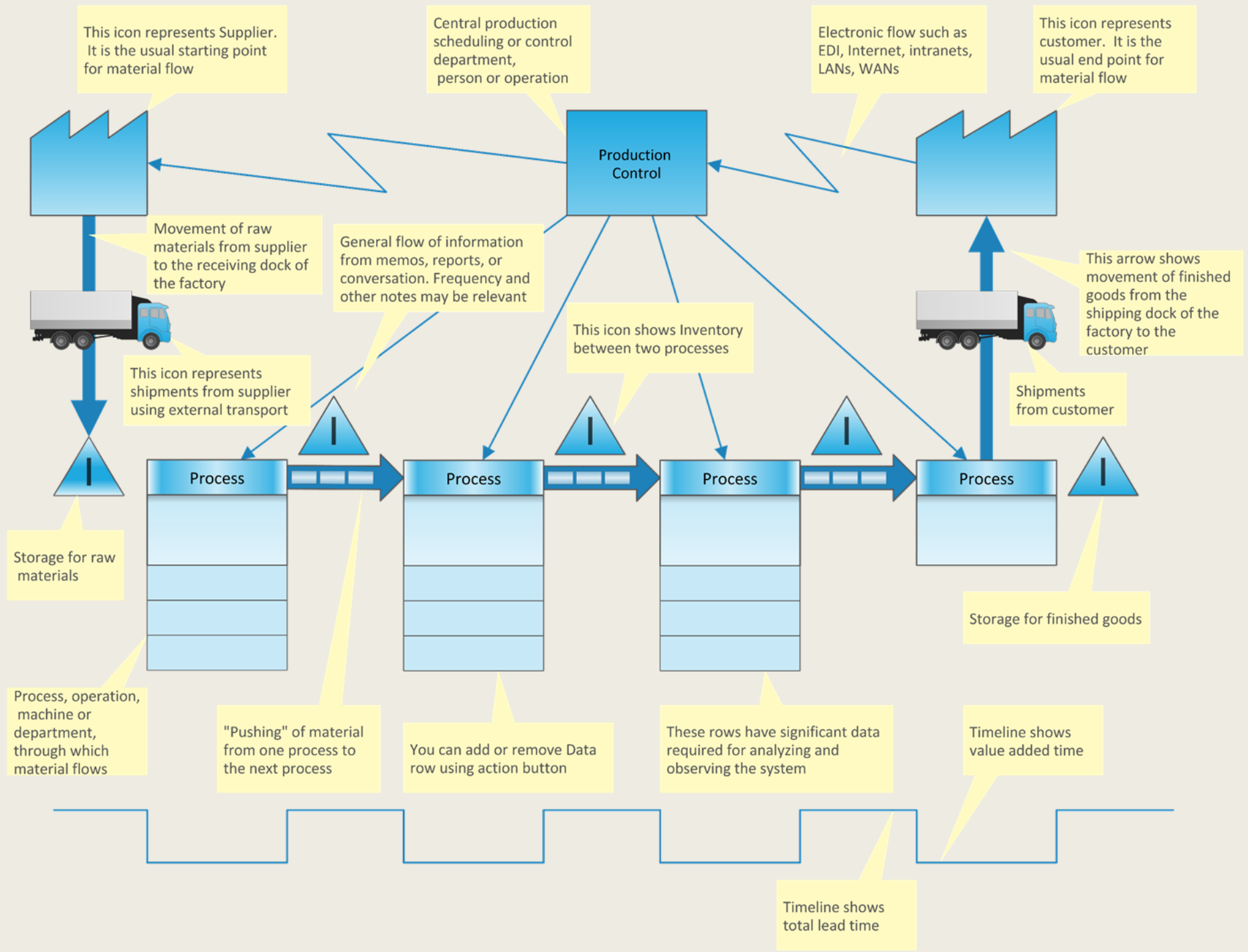
Information for those reading slides
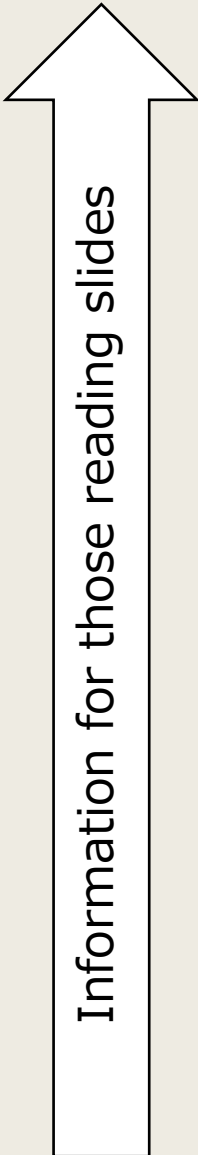
Value Stream Mapping
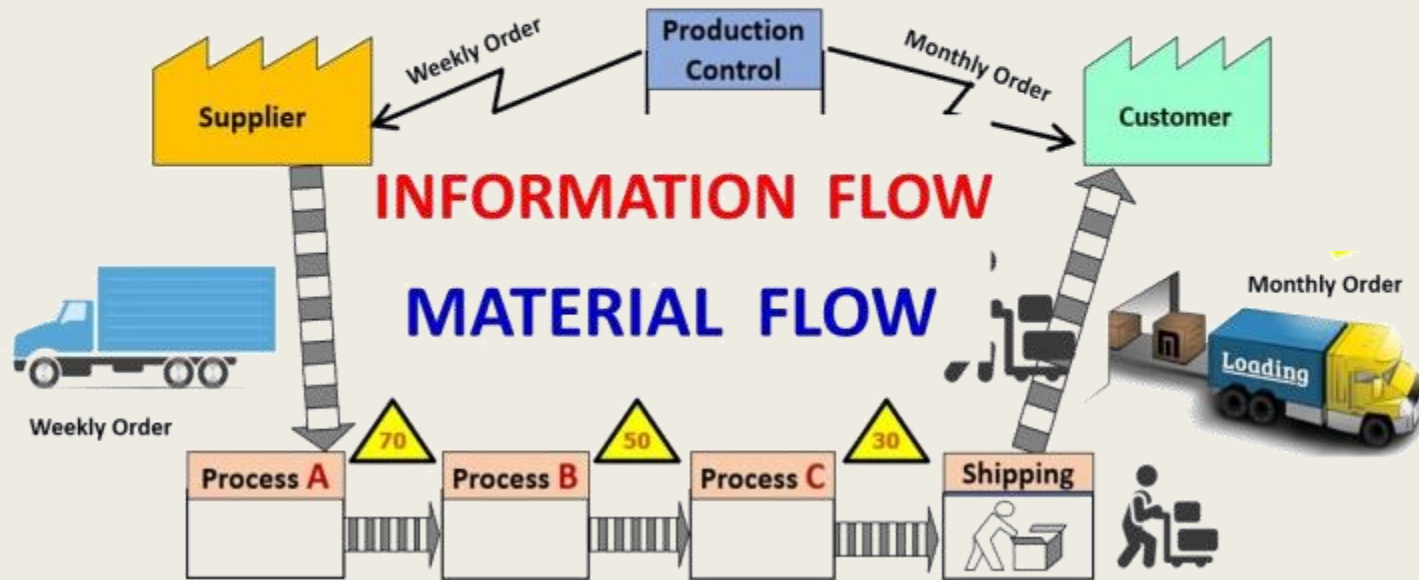
- **Value stream map** is a visual tool that displays all critical steps in a specific process and quantifies easily the time and volume taken at each stage.
- **Value stream maps** show the flow of both materials and information as they progress through the process.

Value Stream Map Template

This icon represents Supplier. It is the usual starting point for material flow

Central production scheduling or control department, person or operation

Electronic flow such as EDI, Internet, intranets, LANs, WANs

This icon represents customer. It is the usual end point for material flow

Production Control

Movement of raw materials from supplier to the receiving dock of the factory

General flow of information from memos, reports, or conversation. Frequency and other notes may be relevant

This icon shows Inventory between two processes

This arrow shows movement of finished goods from the shipping dock of the factory to the customer

This icon represents shipments from supplier using external transport

Shipments from customer

Process

Process

Process

Process

Storage for raw materials

Storage for finished goods

Process, operation, machine or department, through which material flows

"Pushing" of material from one process to the next process

You can add or remove Data row using action button

These rows have significant data required for analyzing and observing the system

Timeline shows value added time

Timeline shows total lead time

PMI DAVSC Three Types of Value Stream

Development
- The process an organization uses to develop a product or service.

Operational
- The process by which an organization directs product usage or service delivery.

Support
- Supports the work of the other value streams.
- This often includes one-time operations that go away once they've set up a development stream or operational value stream – activities like ordering equipment, hiring people, entering data, or updating database?
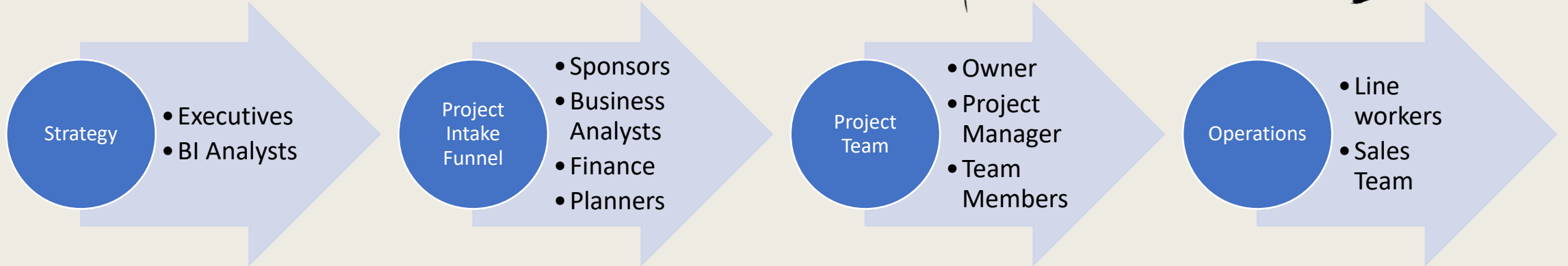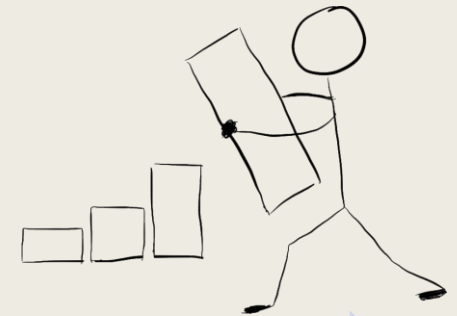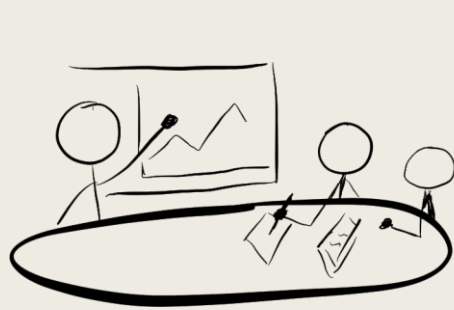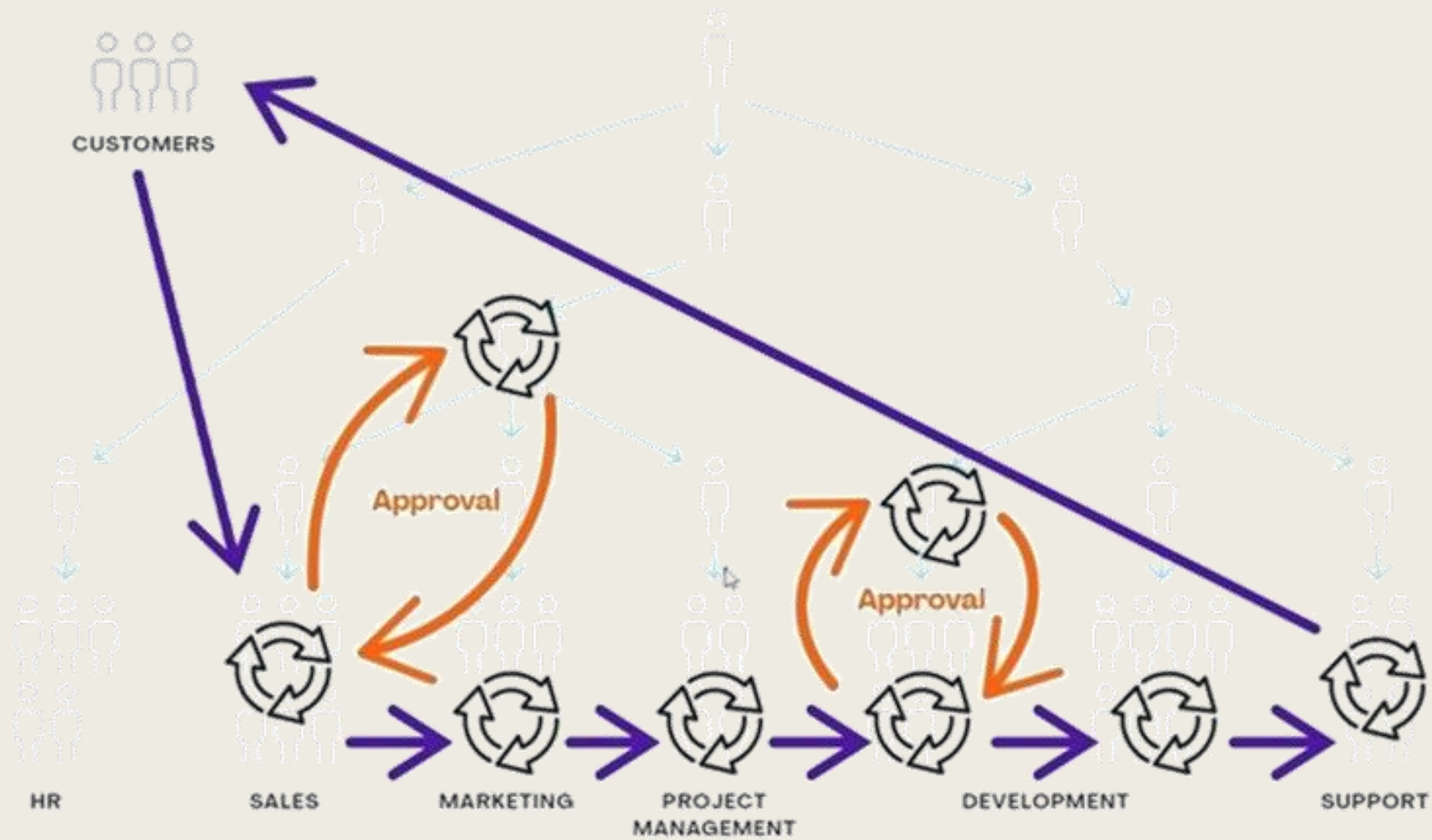
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Realities of Delay
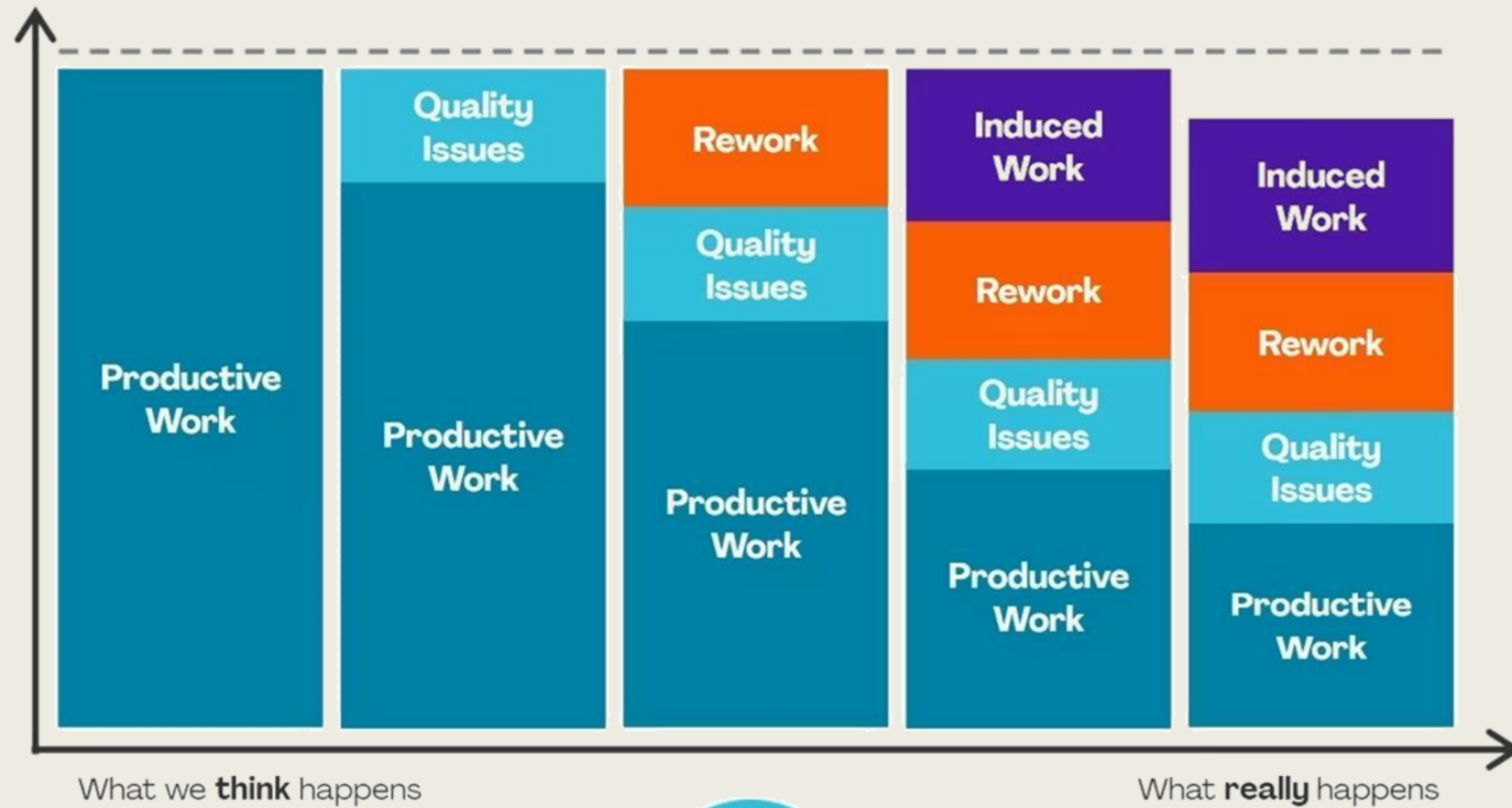
Thoughts

- Instead of controlling the people or the work.

- We should focus on the flow of the work. (Value)

Strategy
- Executives
- BI Analysts

Project Intake Funnel
- Sponsors
- Business Analysts
- Finance
- Planners

Project Team
- Owner
- Project Manager
- Team Members

Operations
- Line workers
- Sales Team

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Flow

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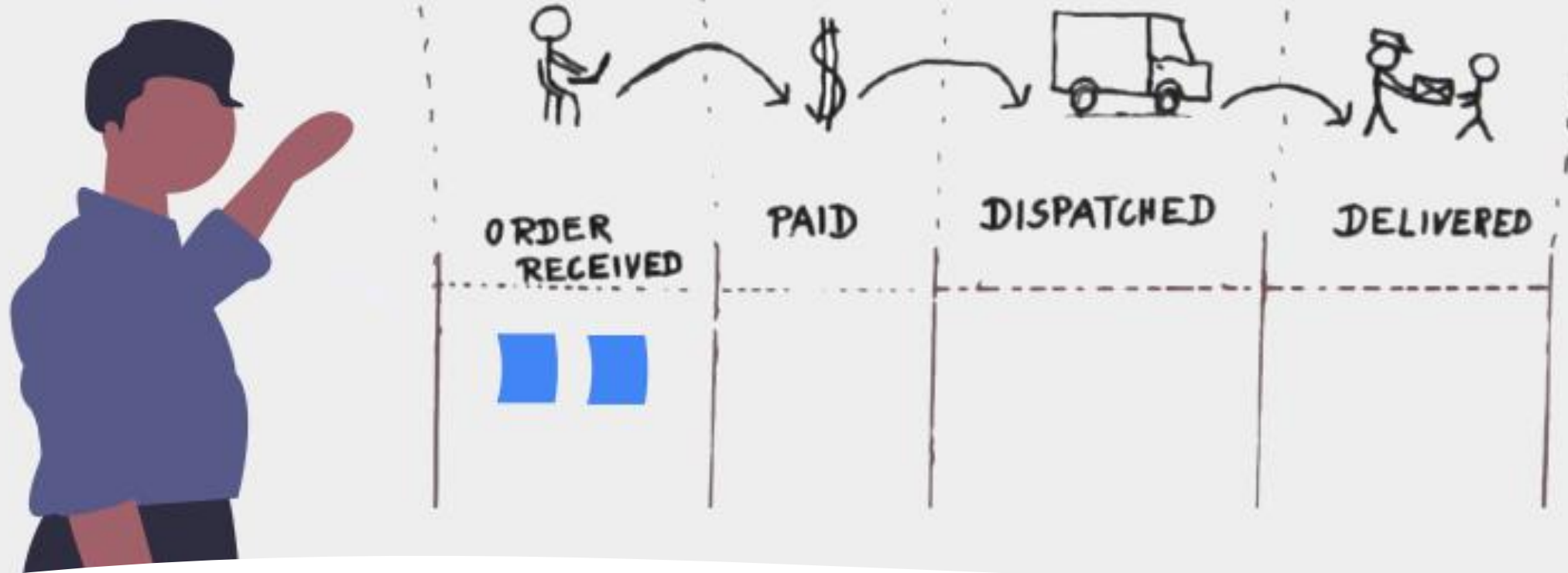
By visualizing and understanding the value stream components, teams can identify inefficiencies, bottlenecks, and areas for improvement, resulting in better quality products, more efficient processes, and higher customer satisfaction.

Visualize a Value Stream

There are several ways to visualize a value stream depending on the needs of the organization and the audience. Here are some of the best ways to visualize a value stream:

The choice of visualization method will depend on the specific needs of the organization and the complexity of the value stream. It's important to choose a method that is easy to understand and communicates the information effectively

Value Stream Map	**A value stream map is a visual representation of the steps in the value stream, including information on process time, lead time, inventory, and other metrics. It is a powerful tool for identifying waste and inefficiencies in the process.**
Swimlane Diagram	A swimlane diagram is a flowchart that shows the interactions between different departments or teams involved in the value stream. It is useful for identifying handoffs and delays between teams.
Kanban Board	A Kanban board is a visual management tool that shows the workflow of the value stream in a simple and easy-to-understand way. It is useful for tracking progress and identifying bottlenecks.
Gantt Chart	A Gantt chart is a timeline visualization that shows the tasks and dependencies involved in the value stream. It is useful for planning and scheduling tasks.
Process Flow Diagram	A process flow diagram is a simple visual representation of the steps in the value stream, using symbols and arrows to show the flow of work. It is useful for communicating the overall process flow to a wide audience.

And yes ….

Let's Bring the Workstream into the Project
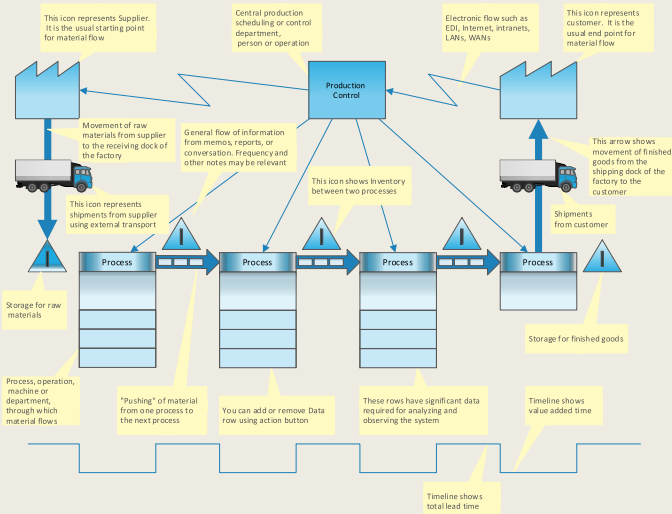
Aligning Project Work Packages to a Value Stream

Strategic Alignment

Value Stream Alignment

Process Alignment

Epic / User Story Alignment

Work package / task alignment

Repacking PM / Value Stream stuff
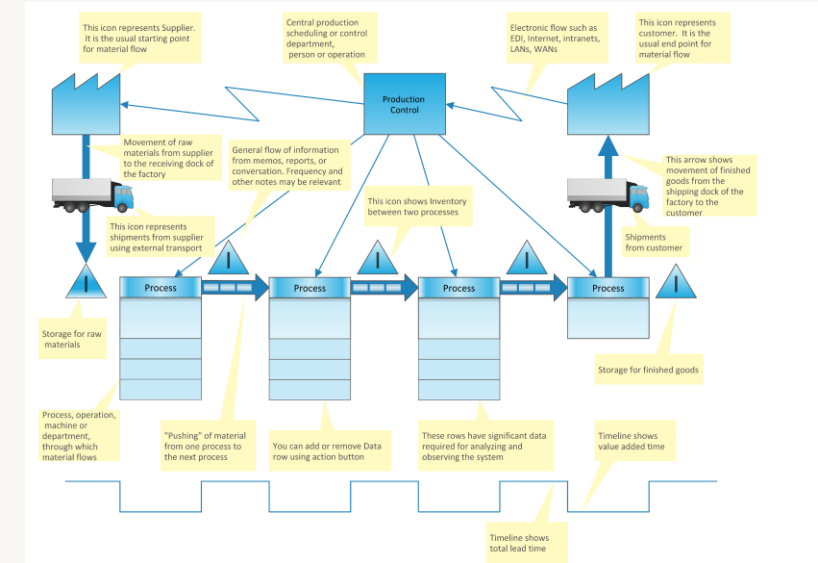
Epics as Value Streams

Project Outcomes mapped to process steps in
"the Value Stream"

Business Value Focus

How do outcomes and capabilities of project
impact the value stream

- *Productivity*

- *Capacity*

- *Throughput*

- *Metrics*

- *GIMBA*

Lets map work to value stream performance
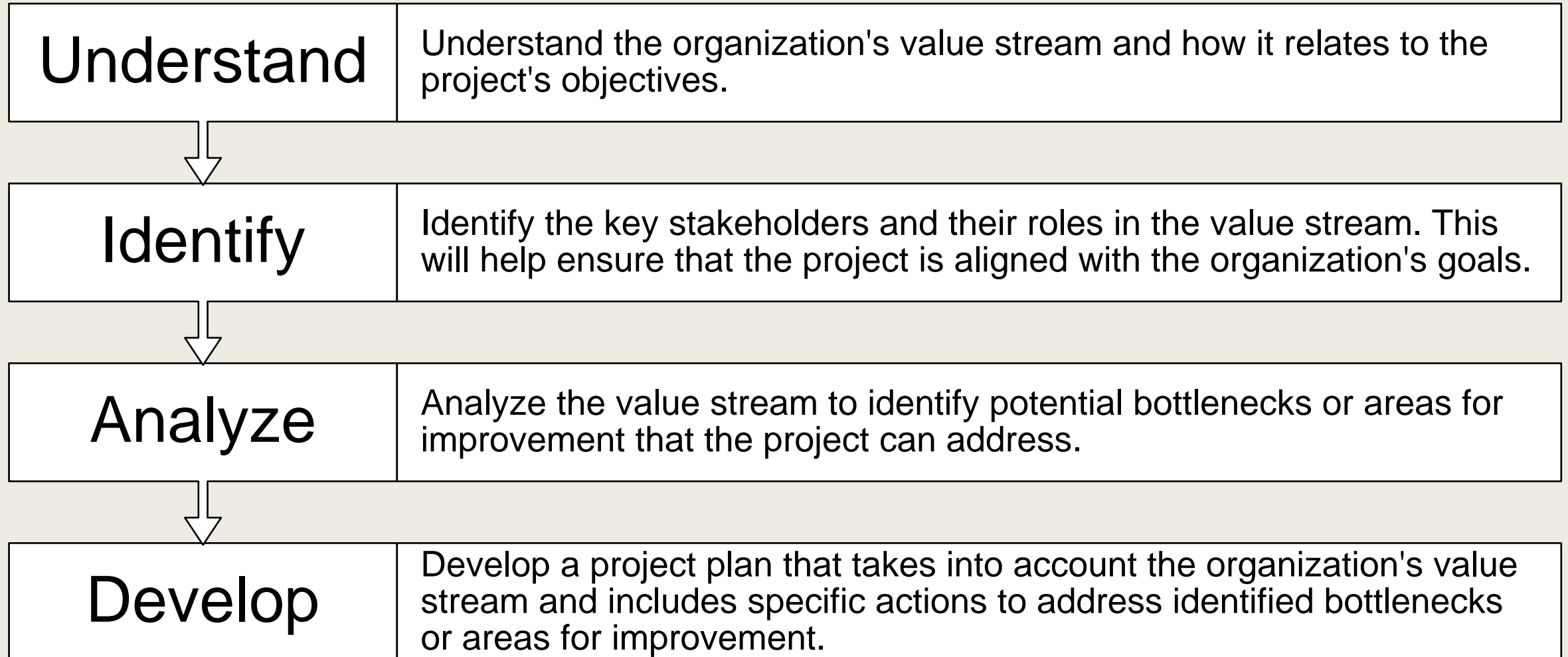
IT Application Value Stream

Planning and ideation	**This component includes brainstorming and identifying the application's purpose, requirements, and features.**
Development	This component includes designing, coding, testing, and integrating the application's functionality.
Deployment	This component includes configuring the application, deploying it to production environments, and ensuring that it works as expected.
Operations and support	This component includes maintaining the application, monitoring its performance, and providing support to end-users.
Feedback and continuous improvement	This component includes collecting feedback from end-users, analyzing it, and using it to improve the application.
Security and compliance	This component includes ensuring that the application meets security and compliance standards, such as GDPR, HIPAA, or PCI DSS.
Collaboration and communication	This component includes using collaboration tools and communicating effectively across teams to ensure that everyone is aligned and working towards the same goals

The Value Stream in Project Planning

By incorporating the value stream into project planning, a project manager can ensure that the project is aligned with the organization's goals and has the greatest impact on the overall value stream.

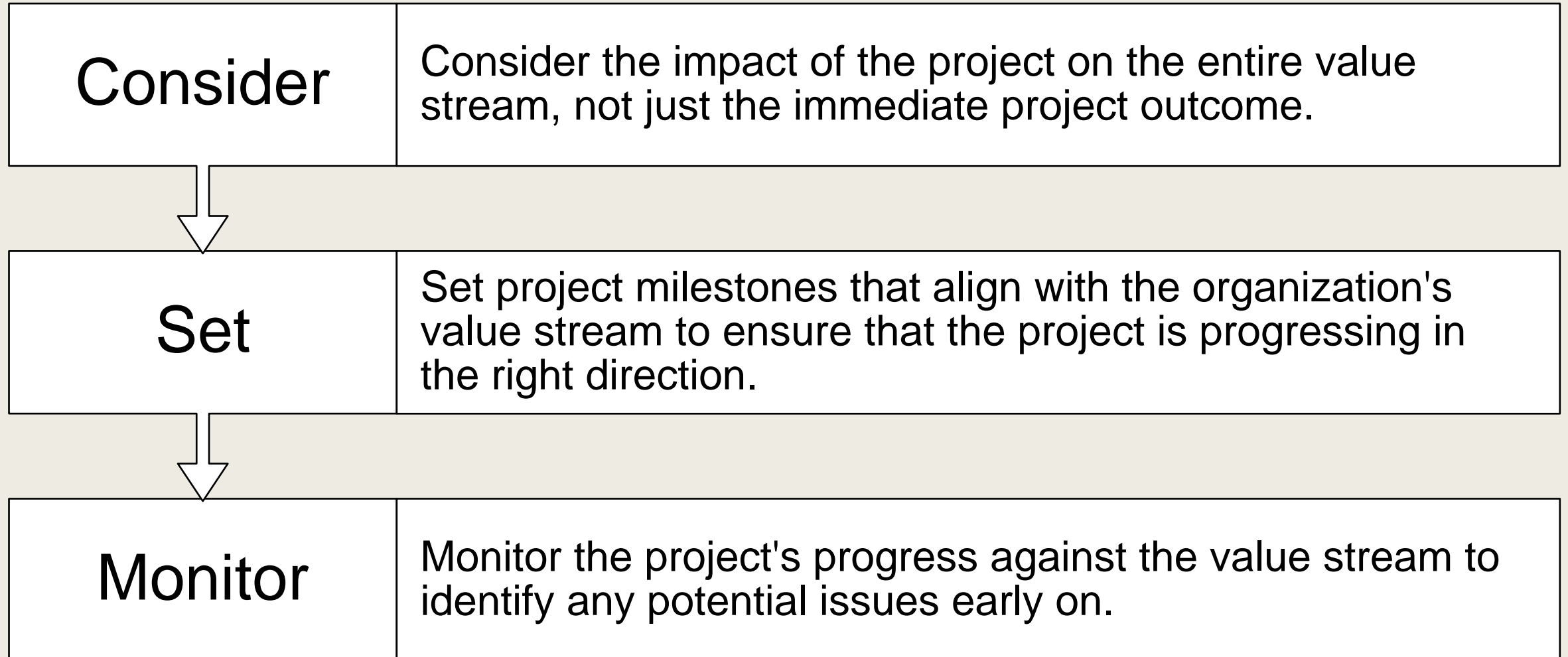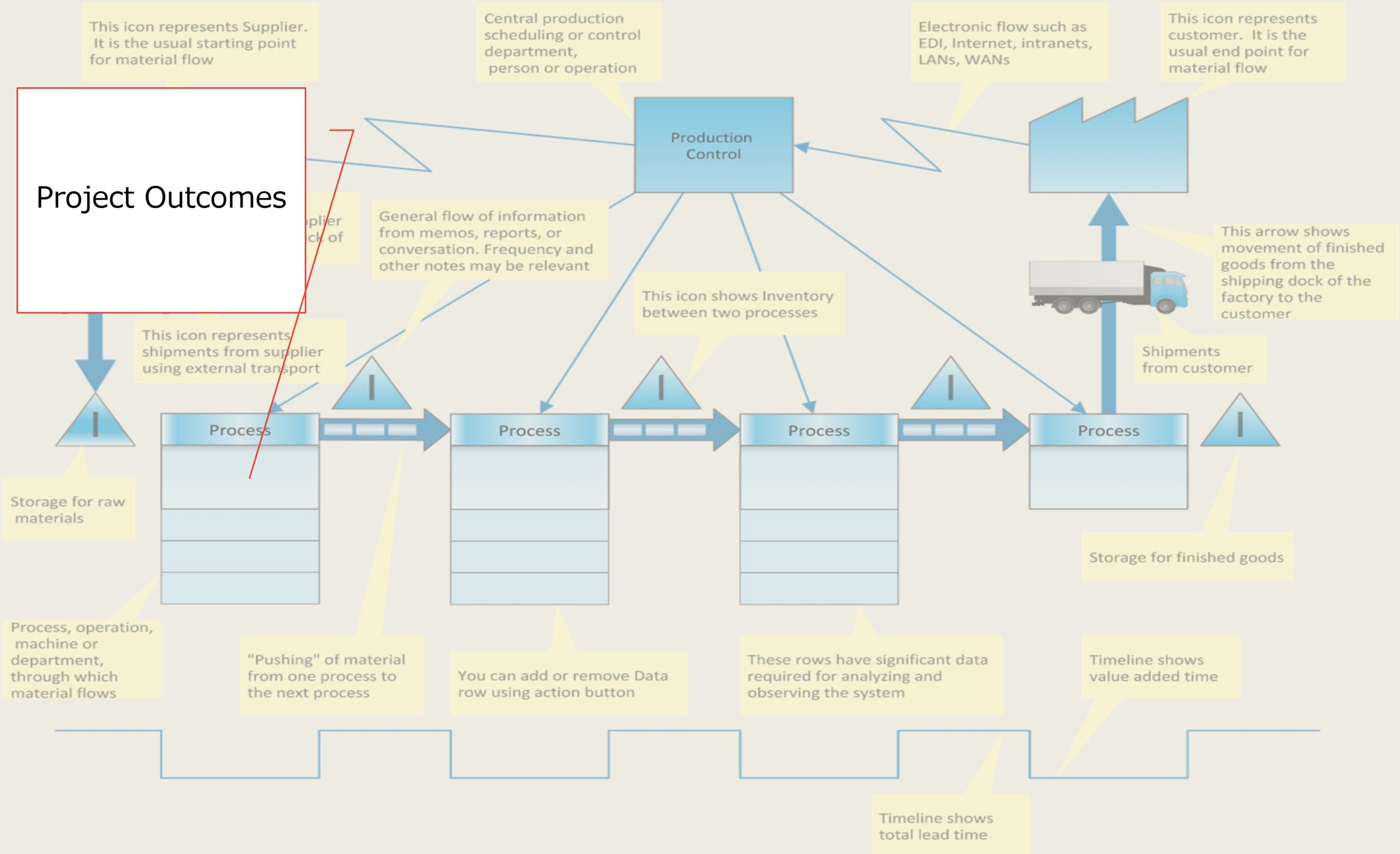| Understand	Understand the organization's value stream and how it relates to the project's objectives.
Identify	Identify the key stakeholders and their roles in the value stream. This will help ensure that the project is aligned with the organization's goals.
Analyze	Analyze the value stream to identify potential bottlenecks or areas for improvement that the project can address.
Develop	Develop a project plan that takes into account the organization's value stream and includes specific actions to address identified bottlenecks or areas for improvement.

The Value Stream in Project Planning

By incorporating the value stream into project planning, a project manager can ensure that the project is aligned with the organization's goals and has the greatest impact on the overall value stream.

Consider	Consider the impact of the project on the entire value stream, not just the immediate project outcome.
Set	Set project milestones that align with the organization's value stream to ensure that the project is progressing in the right direction.
Monitor	Monitor the project's progress against the value stream to identify any potential issues early on.

Value Stream Metrics

Common metrics that are often used to measure the performance of value stream components:

- Cycle Time - the time it takes for a product or service to move through a process from start to finish.

- Lead Time - the total time it takes to deliver a product or service from the moment the customer places an order until it is delivered.

- Takt Time - the pace at which a product or service must be produced or delivered in order to meet customer demand.

- Process Time - the time it takes to complete a specific task or activity within a process.

- Throughput - the number of products or services produced or delivered in a given time period.

- Yield - the percentage of products or services that meet quality standards and are accepted by customers.

- Work-In-Progress (WIP) - the number of unfinished products or services at any point in the value stream.

- Inventory - the amount of raw materials, work-in-progress, and finished goods stored in the value stream.

- Defect Rate - the percentage of products or services that fail to meet quality standards.

- Customer Satisfaction - a measure of how well the value stream is meeting customer needs and expectations.
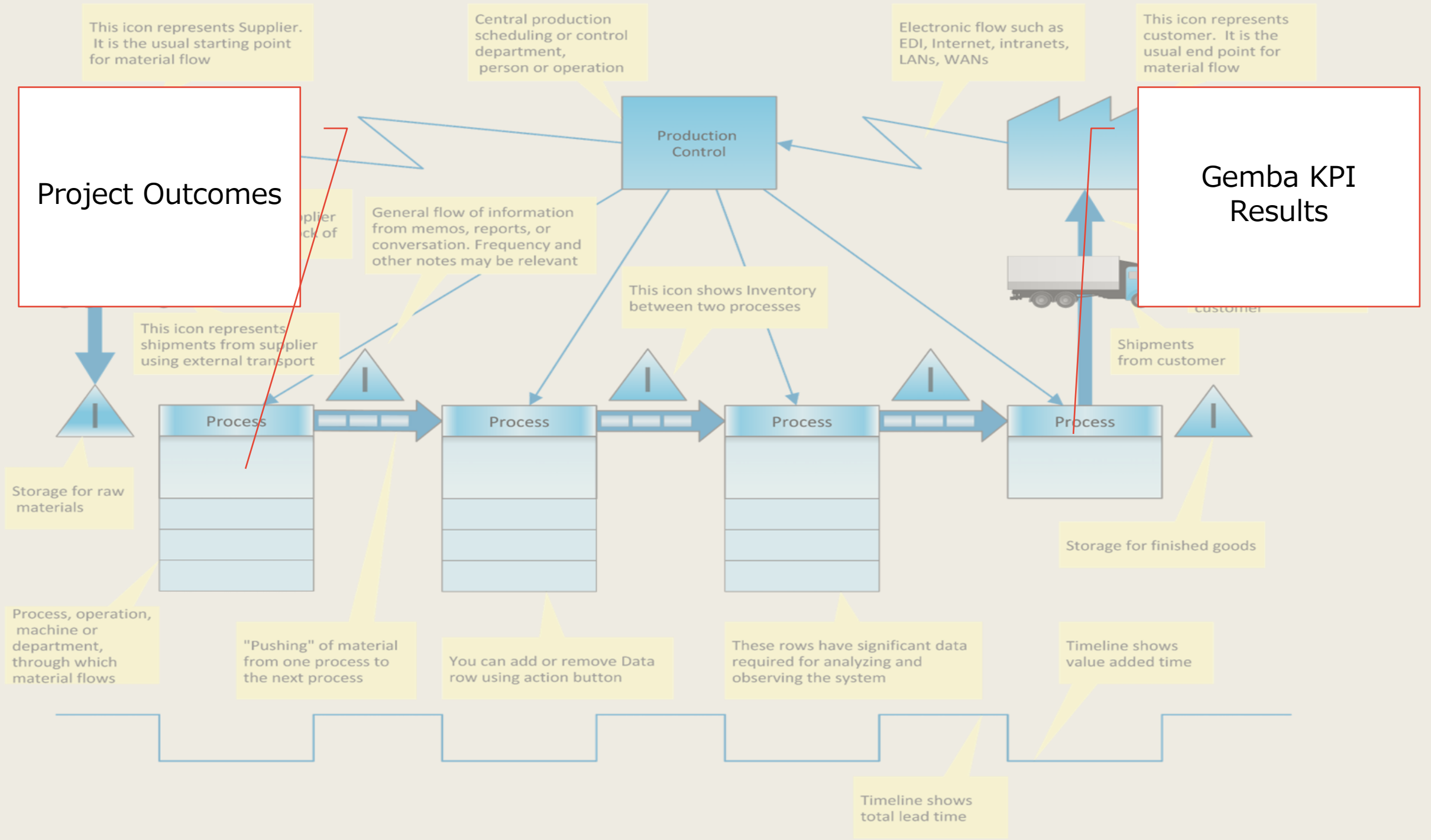
By tracking these metrics, organizations can identify areas where improvements can be made to the value stream, optimize processes, reduce waste, and increase efficiency.

What's Going On?

A Gemba Walk

- Go to "the real place" to see what is really happening.
- Listen to the story behind the data
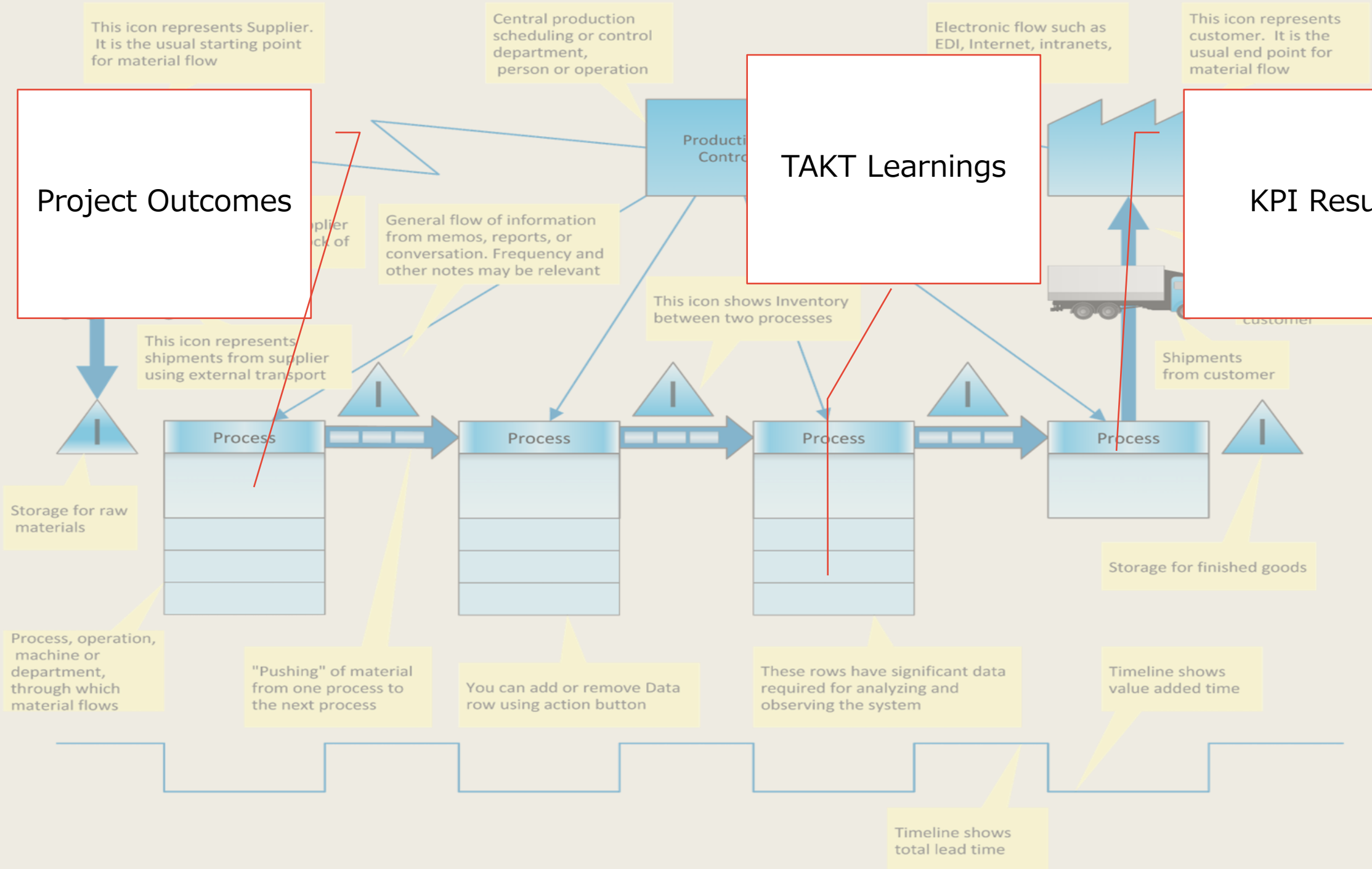- Break free of Cognitive Bias

TAKT Methodology

The TAKT methodology is designed to help organizations streamline their processes and reduce waste, leading to increased efficiency, higher quality outputs, and improved customer satisfaction. By following the TAKT approach, organizations can identify and eliminate waste at every step of the process, leading to continuous improvement and sustainable success

- Streamlining Processes through Waste Elimination

- TAKT is a methodology used in lean manufacturing to identify and eliminate waste in a process. It stands for:

- Transport: This involves analyzing the movement of goods or information through a process to identify any unnecessary or inefficient transportation.

- Arrange: This involves organizing the workspace to maximize efficiency and minimize waste. This can include optimizing storage locations, streamlining workflows, and reducing unnecessary movement.

- Kaizen: This refers to the continuous improvement of a process over time. It involves setting goals, gathering data, and making targeted improvements to eliminate waste and increase efficiency.

- Improvement: This involves implementing changes to a process that have been identified through the TAKT methodology. These changes may include process redesign, the introduction of new technology, or the optimization of existing workflows.

Benefits and the Value Stream

Chain the benefits of the project outcomes and capabilities throughout the value stream to represent exponential benefits of multiple enhancements.

Develop your Program Value Stream:
Benefits Breakdown Structure
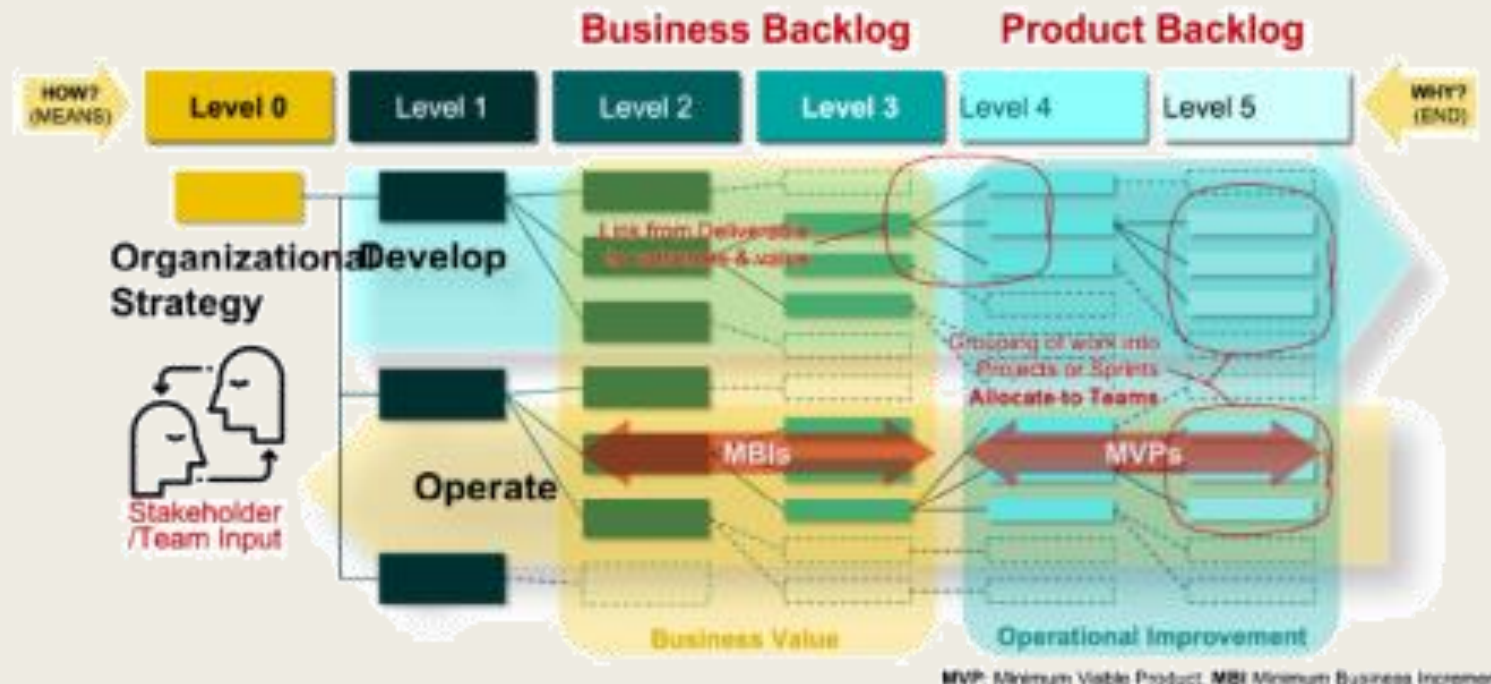
Project Outcomes

Emergent Benefits

TAKT Learnings

KPI Results

Guided Continuous Improvement

Improvement

Guided Continuous Improvement

Continuous Improvement

Adopting a Prescriptive Method/Framework

Time

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Start where you are,
do the best that you can in the situation that you face,
and always strive to get better.

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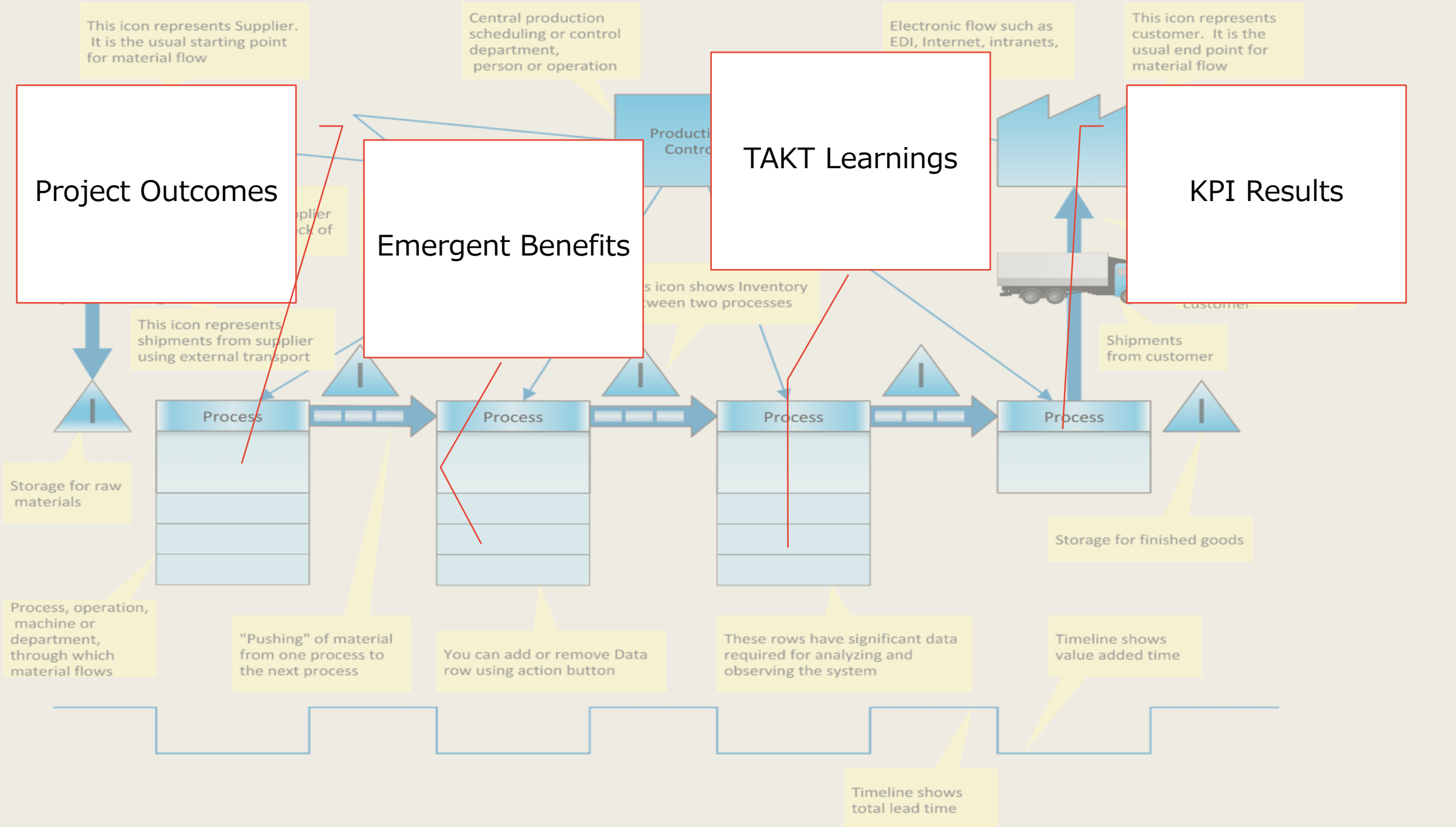
In addition, how do we achieve these?

Management's role is to facilitate creating great value streams. Must work with the teams to do so, not dictate to them, but support them.

Systems thinking is required. Systems thinking is more about the relationships between the components than the components themselves. This reflects - *Act locally, but in the global context* - DA's principle "Enterprise Awareness"

The organization the value stream is in must provide a positive influence to these factors. For example, do HR policies encourage positive actions or deter it?

Moonshine

Moonshine events are an integral part of the Toyota Production System's approach to continuous improvement, which emphasizes the importance of empowering frontline workers to identify and address inefficiencies in their work environment.

By encouraging workers to engage in informal and unauthorized process improvement activities, Moonshine events help to create a culture of continuous improvement within the organization. This culture encourages workers to take ownership of their work processes and to constantly seek out opportunities to improve those processes.

Moonshine events are designed to be small-scale and low-risk, which allows workers to experiment with new process improvements without the fear of failure or negative consequences. This fosters a sense of creativity and innovation, and encourages workers to think outside the box when developing solutions to problems.

Because Moonshine events are initiated by frontline workers, they are often able to identify and address problems that may have been overlooked by management. This can lead to improvements in efficiency, productivity, and quality that can have a significant impact on the overall success of the business.

The results of Moonshine events are typically evaluated and shared with management, who can then decide whether to implement the improvements on a larger scale. This allows the organization to continuously improve its processes and to stay competitive in a rapidly changing business environment.

Finally, Moonshine events can help to create a sense of pride and ownership among workers, as they see the direct impact of their efforts on the success of the business. This can lead to increased job satisfaction and employee engagement, which can in turn drive further improvements and contribute to the long-term success of the organization.

Lessons Learned to a Value Stream

By mapping project lessons learned to the organization's value stream, the organization can leverage the knowledge gained from the project to improve its overall operations and achieve better results.

Process Improvement

If the project identified any process-related issues or bottlenecks, the lessons learned can be mapped to the organization's value stream to identify opportunities for process improvement. For example, if the project revealed that a particular process step was slowing down the overall workflow, the organization can use this lesson to streamline the process across its value stream, resulting in faster and more efficient operations.

Resource Allocation

If the project identified resource-related challenges, such as lack of expertise or insufficient budget, the lessons learned can be mapped to the organization's value stream to ensure that the necessary resources are allocated appropriately in the future. For example, if the project revealed that a particular team lacked the necessary skills to complete a task, the organization can use this lesson to ensure that the right resources are in place across the value stream to support successful project execution.

Risk Management

If the project uncovered any risks that were not adequately addressed, the lessons learned can be mapped to the organization's value stream to ensure that similar risks are identified and mitigated in the future. For example, if the project revealed that a particular vendor had a history of late deliveries, the organization can use this lesson to evaluate vendors across the entire value stream to minimize the risk of delays.

Map Lesson Learned to Action

Improvement Ideas

Effective Actions

- Everybody didn't understand Objective
- Didn't Know Priorities
- Working multiple projects
- Didn't know my function in the project
- Estimates for my tasks were wrong
- Visibility of work and workflow
- Quality of the product

- Better information from Intake Process
- Team Create a Vision Box
- Portfolio and product management involvement
- Allocating people to make value streams efficient
- Requirements / Story Backlog
- Make work and workflow visible
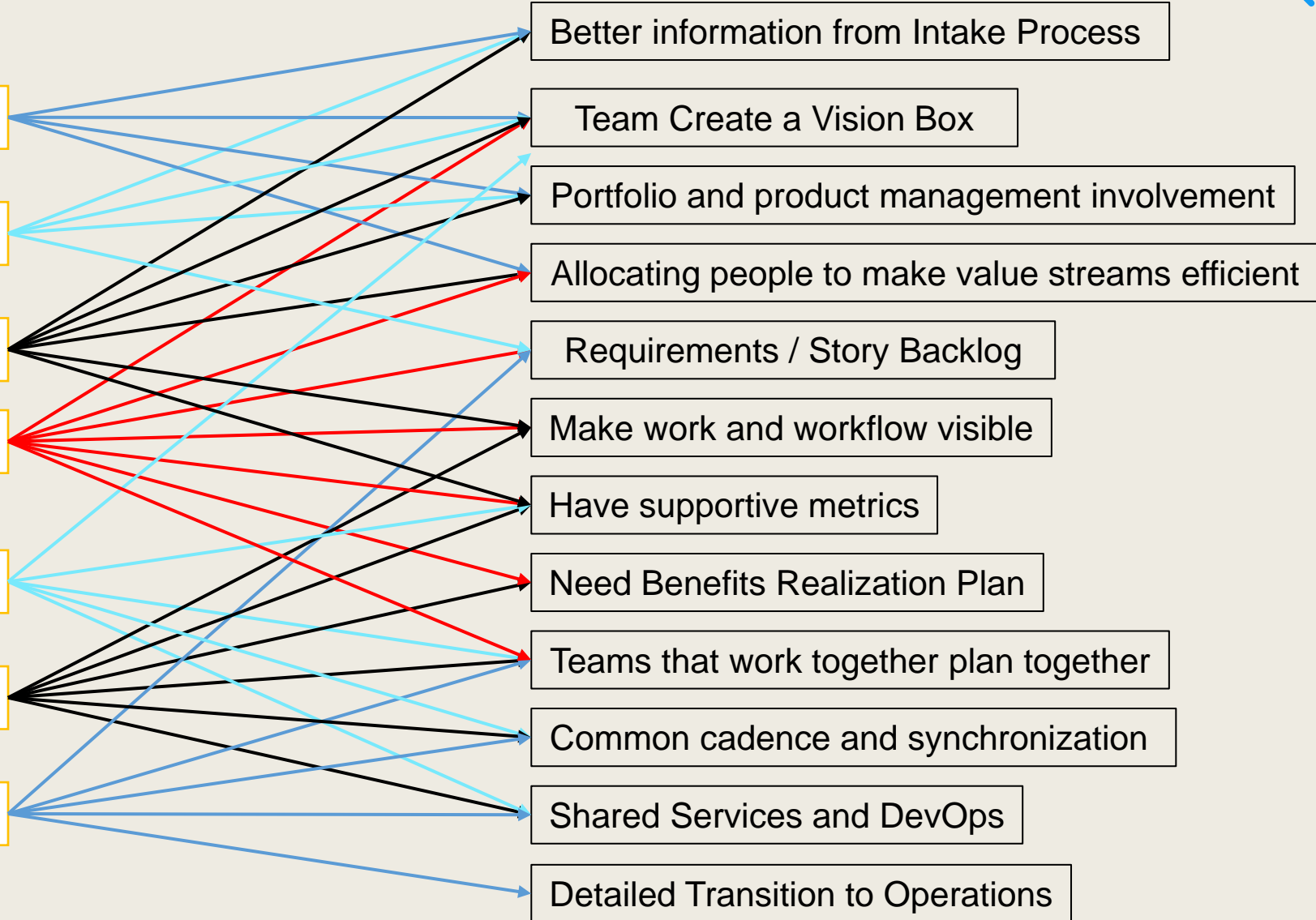- Have supportive metrics
- Need Benefits Realization Plan
- Teams that work together plan together
- Common cadence and synchronization
- Shared Services and DevOps
- Detailed Transition to Operations

Map Improvement to Value Stream

Improvement Ideas

Effective Actions

Add XXX in Step X of the Value Stream

Development team needs to better Understand factors for KPI CCC

Need data flow diagram added to documentation

Develop Journey for job role AAA

Quality of the product

Develop Interim Report in Analytics Group
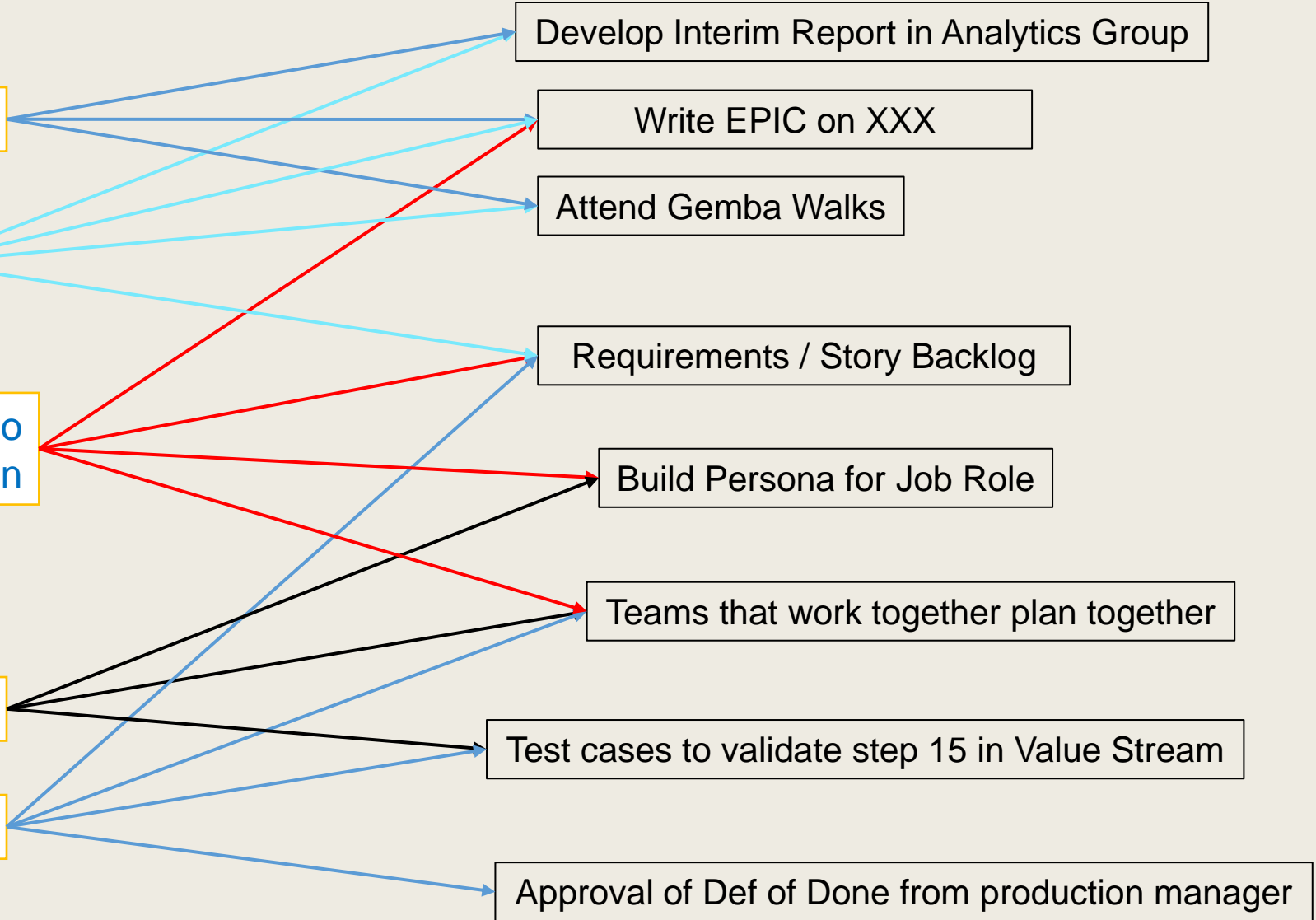
Write EPIC on XXX

Attend Gemba Walks

Requirements / Story Backlog

Build Persona for Job Role

Teams that work together plan together

Test cases to validate step 15 in Value Stream

Approval of Def of Done from production manager

守破離

Shu   Ha   Ri

Thank You!

Questions and Answers

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