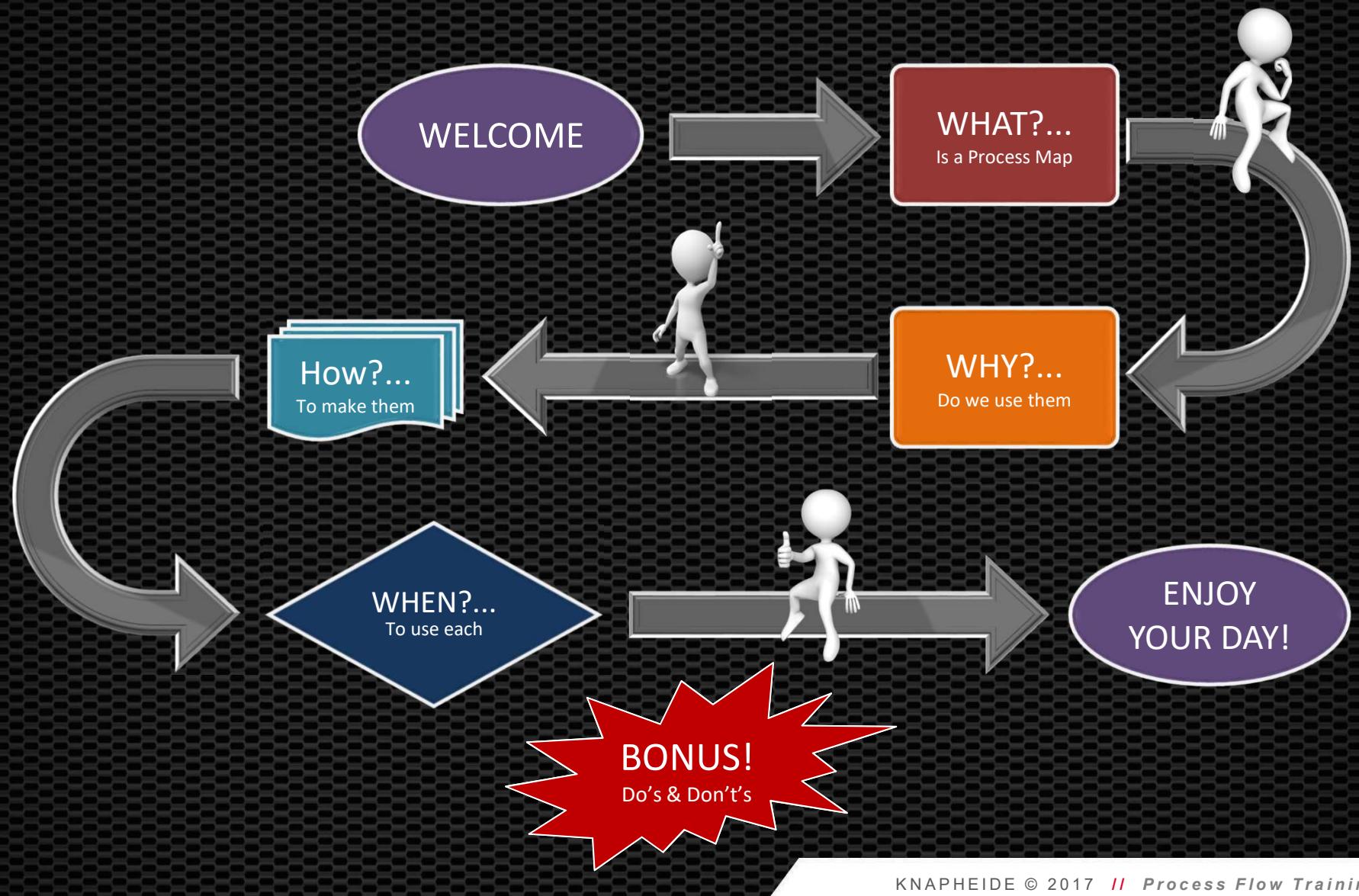


PROCESS MAP TRAINING

Training Toolkit for Effectively Developing and Utilizing
6 Types of Six Sigma Process Maps

KNAPHEIDE
SINCE 1848

AGENDA



WHAT IS A PROCESS MAP?

1

Any action can
be broken down
into a series of
smaller actions.



2

Process Maps
are diagrams
which visualize
these actions
and demonstrate
the flow
between them.

WHAT IS A PROCESS MAP?

3

Diagrams include:

1. Task/Activity
2. Decision Points
3. Cycle Times
4. WIP
5. Transport Time
6. Sequence
7. Loops
8. Travel Distance

5

Choosing the right Process Map is **EQUALLY** as important as knowing how to create each map

4

There are 5 main Process Maps. We will cover 4* in this training:

1. SIPOC
2. High Level
3. Detailed
4. Swimlane

6

The wrong map might confuse matters more, or simply waste people's time (which is worse!)

* 5) Value Stream Maps have separate trainings

WHY USE PROCESS MAPS?

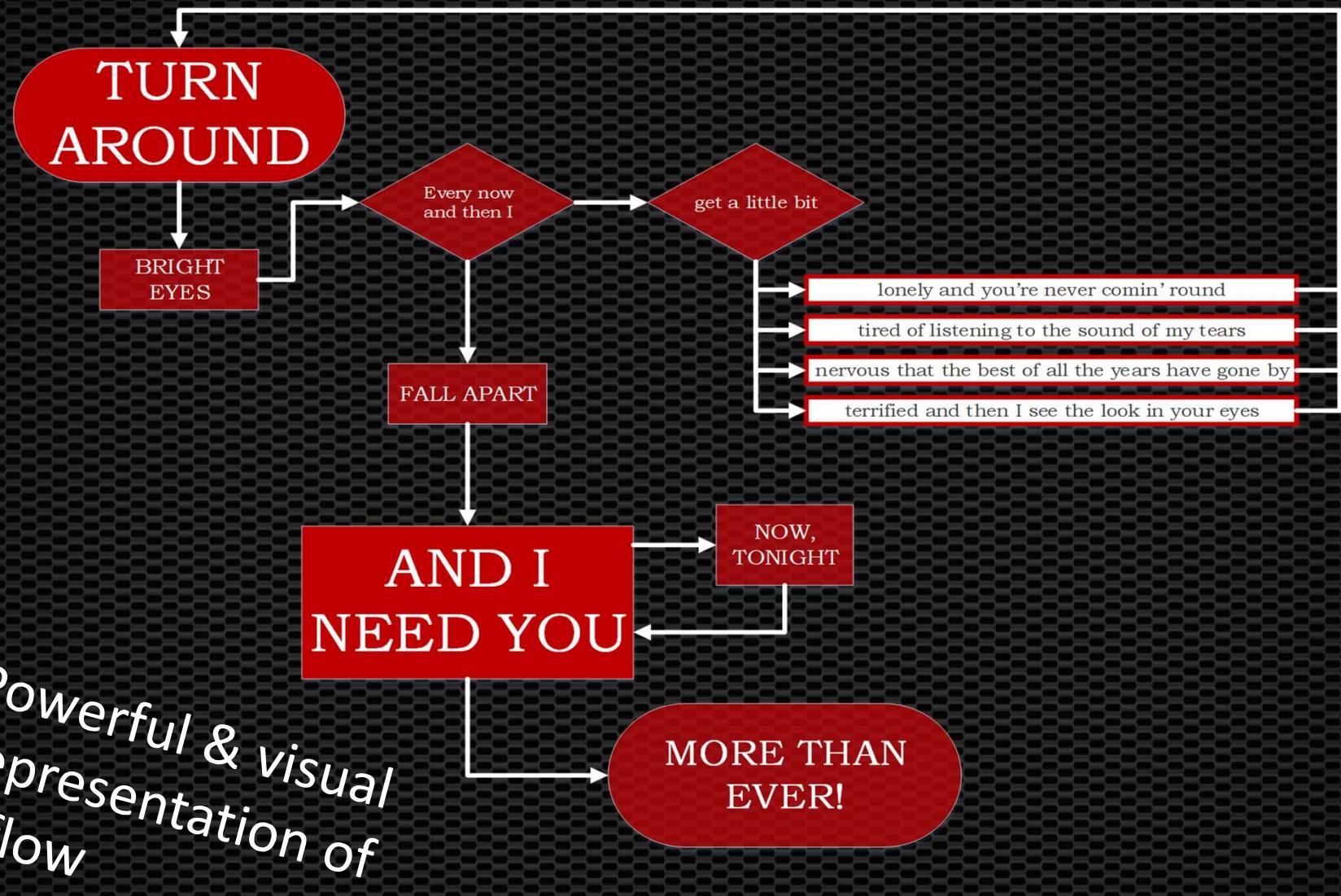
What is going on here?

House	Sky	Window	<u>Chimney</u>
Door	Man	Dog	<i>Mountain</i>
	Boy		<i>Cloud</i>
	Tree		<i>Sun</i>
Dress			<i>Suit</i>
	<i>Deck</i>	Road	
		Path	
Woman	Bird		<i>Fire</i>

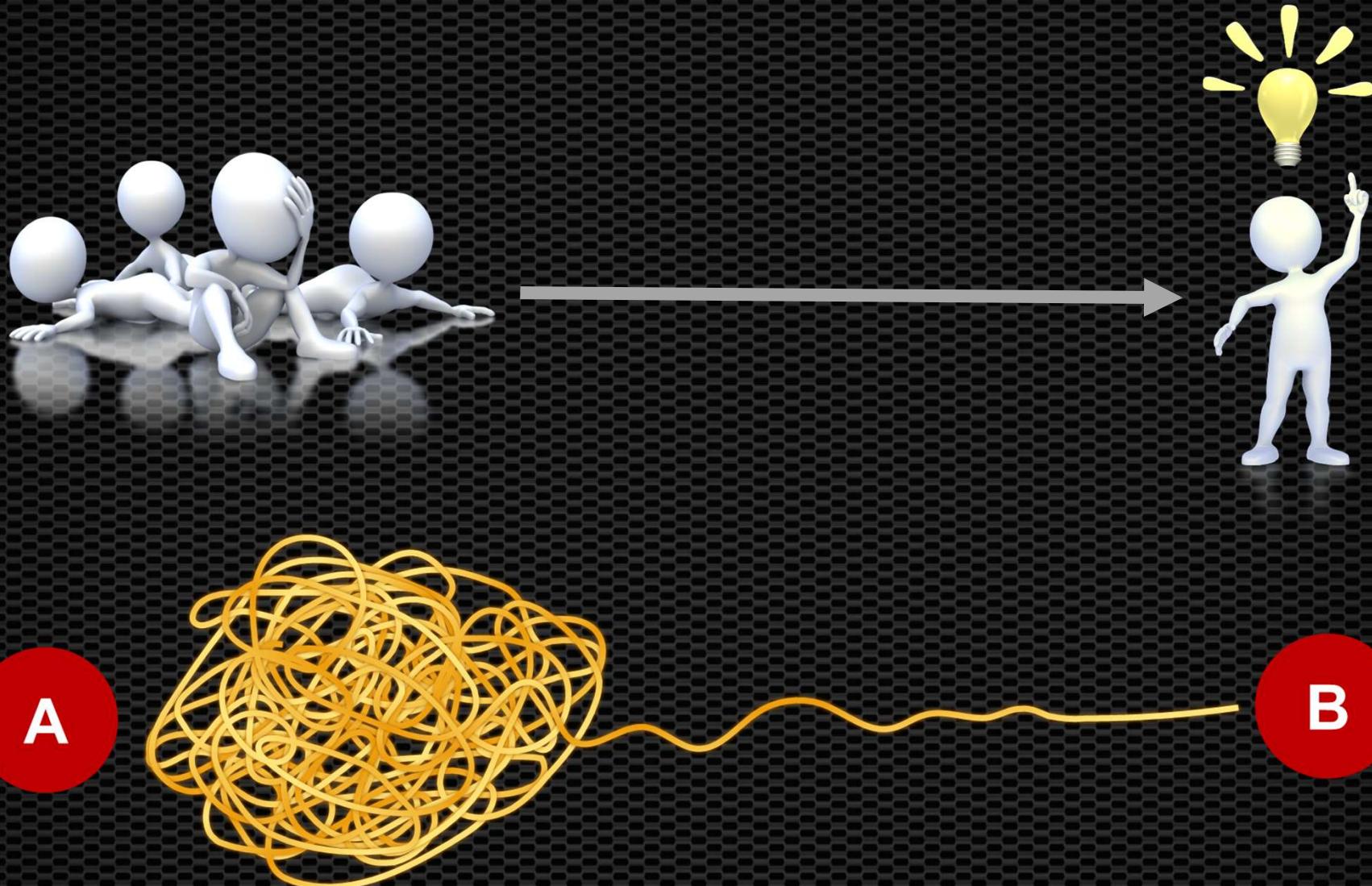
A picture is worth a thousand words!



WHY USE PROCESS MAPS?

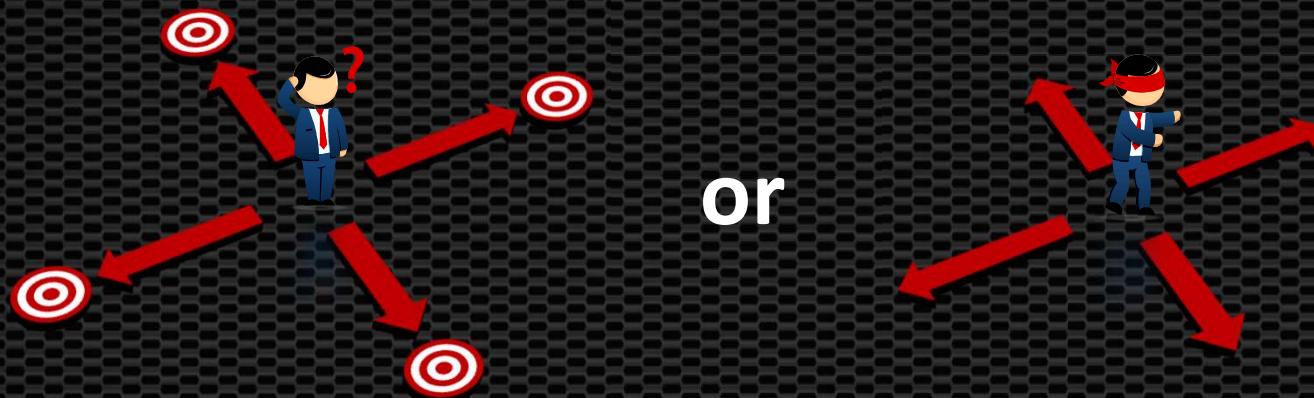


WHY USE PROCESS MAPS?



WHEN TO USE PROCESS MAPS?

“If you can’t describe what you are doing as a process,
you don’t know what you’re doing.” W. Edwards Deming



or

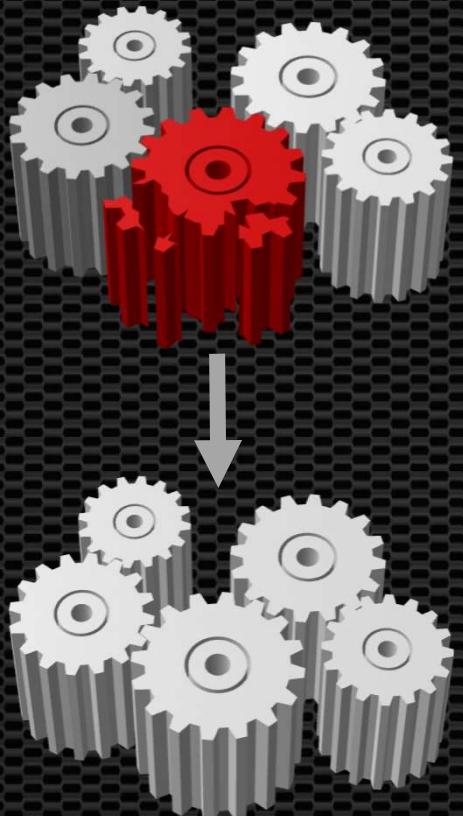
Glasses : Vision :: Process Map : Document/Data/Material Flow



WHEN TO USE PROCESS MAPS?

Making Improvements

“This isn’t working. How can we fix it?”



Procedural Guidelines

“We need to create a process for this.”



SOP = Standard Operating Procedure

TYPES OF PROCESS MAPS



“One Box Map”

- Defines Scope
- Stakeholders
- Inputs/Outputs
- Communication

Supplier	Inputs	Process	Outputs	Customers



Show a detailed breakdown of how a process works



Show how the process works in just a few steps



Separate steps into lanes according to who does the activity

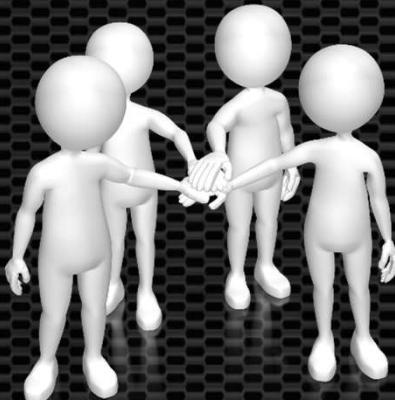


PREPARATION FOR PROCESS MAPPING

1

Include everyone involved in the process.

- Workers
- Customers
- Suppliers
- Managers



2

Clearly define:

- Scope
- Goals
- Timing/Deadlines



3

ALL team members need to have a basic knowledge of Process Mapping (If they do not, send them this training!).

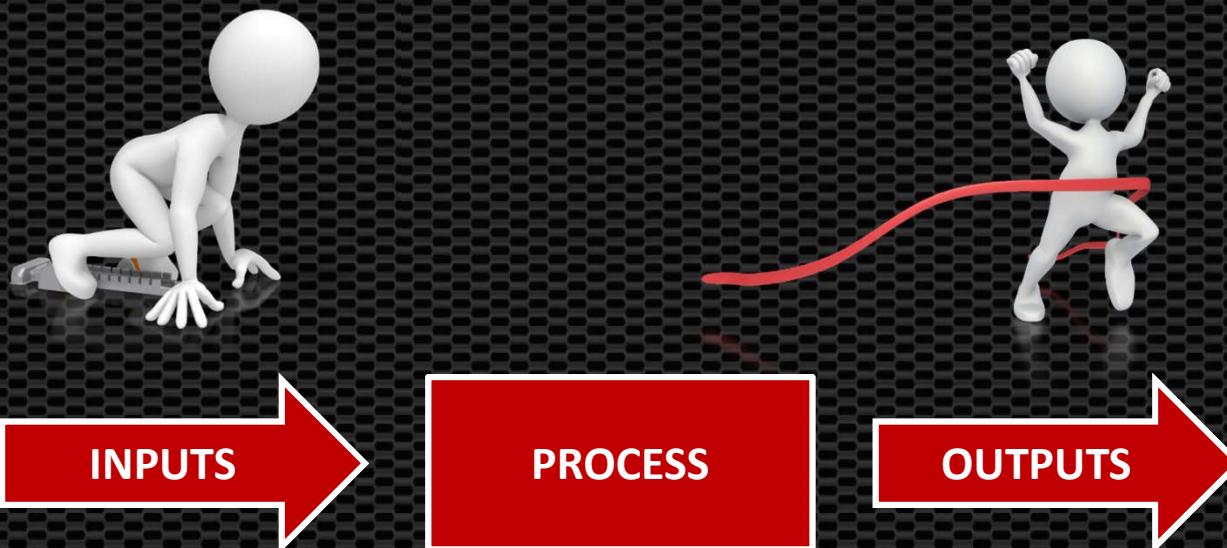


HOW TO CREATE A PROCESS MAP



DEFINING THE BOUNDARIES

Use SIPOC to help define start and finish of SPECIFIC Process to be analyzed

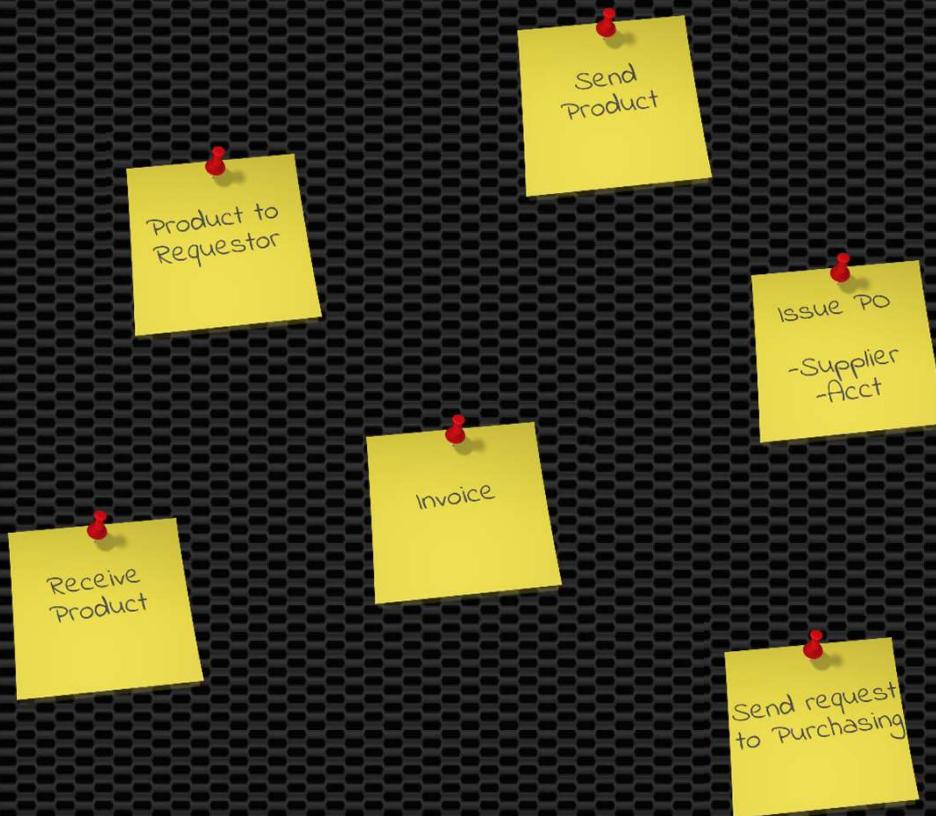


“What must my Supplier provide my Process to meet my needs?”

“How can I assure that my Process outputs meet the needs of my Customer?”

BRAINSTORM & STORYBOARD

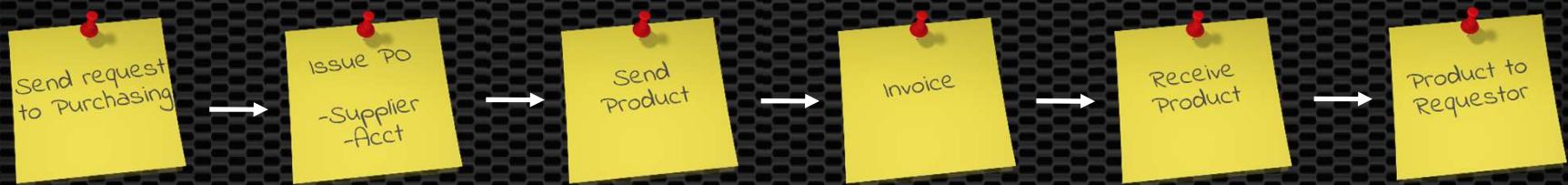
Write Process steps (or assumed steps) on sticky notes and throw them on the wall



MAP CURRENT PROCESS

Arrange steps in time sequence

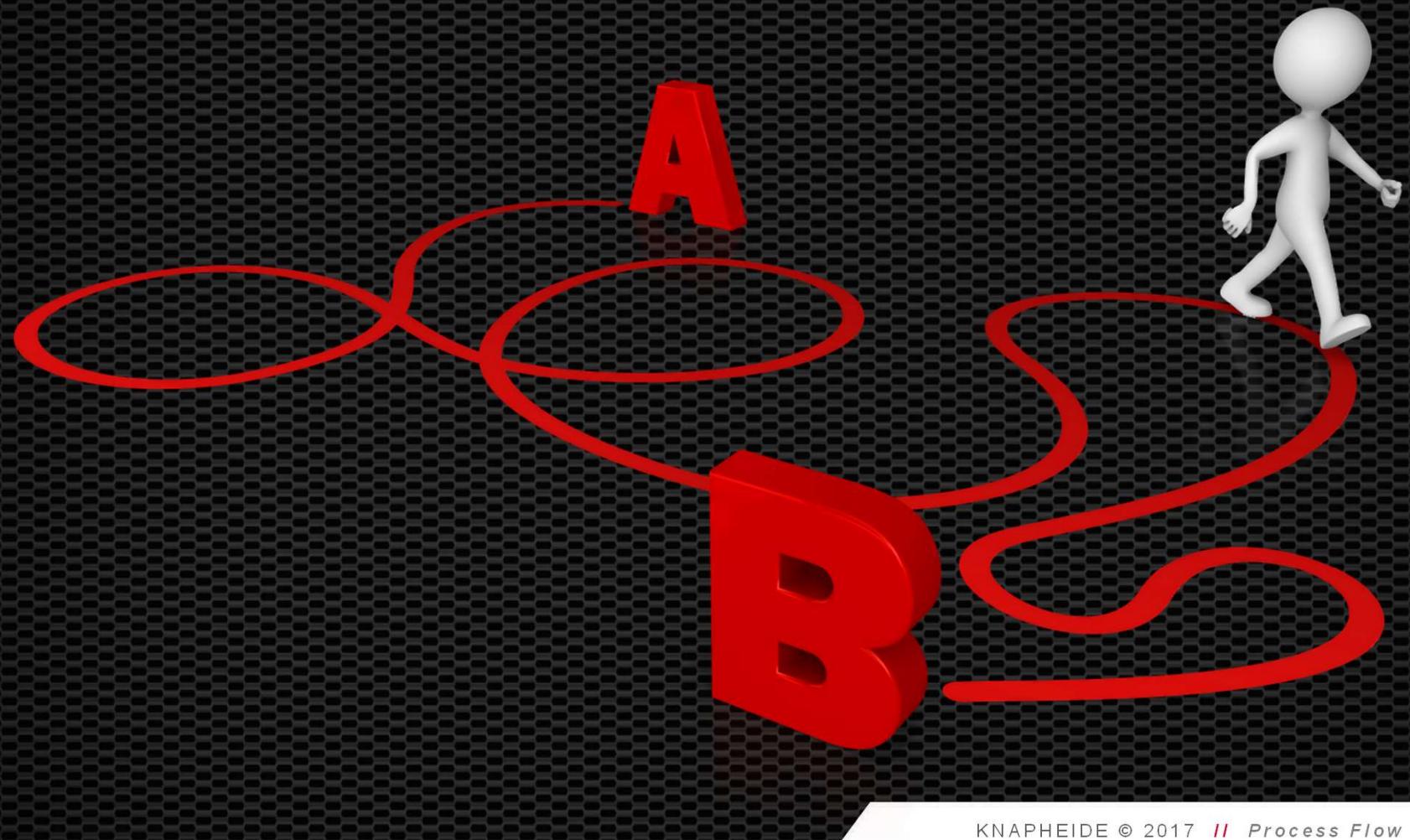
START —————→ END



WALK THE PROCESS

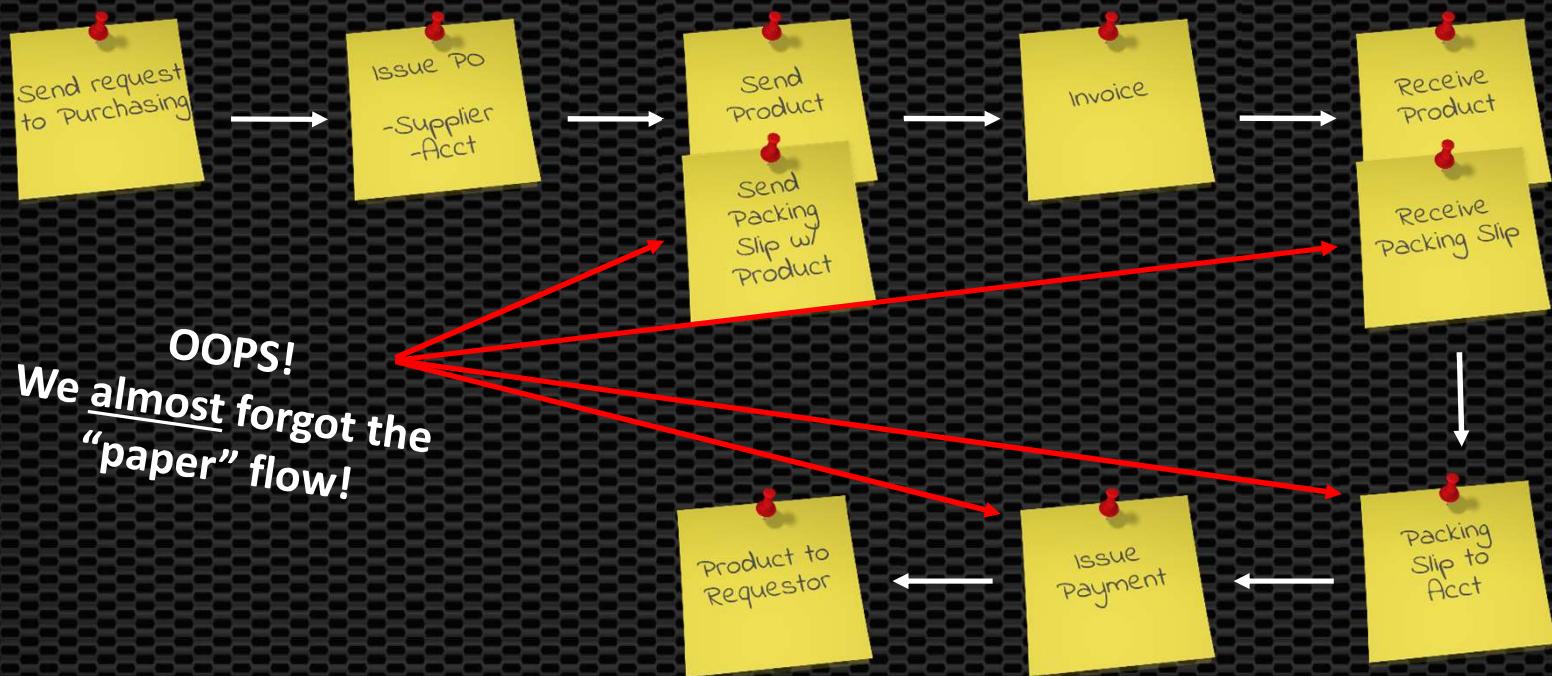
Use this to validate your Process assumptions

- Note any changes you need to make to your Current Process Map



UPDATE MAP

Adjust to match physical flow observed while “walking process”



IDENTIFY IMPROVEMENTS

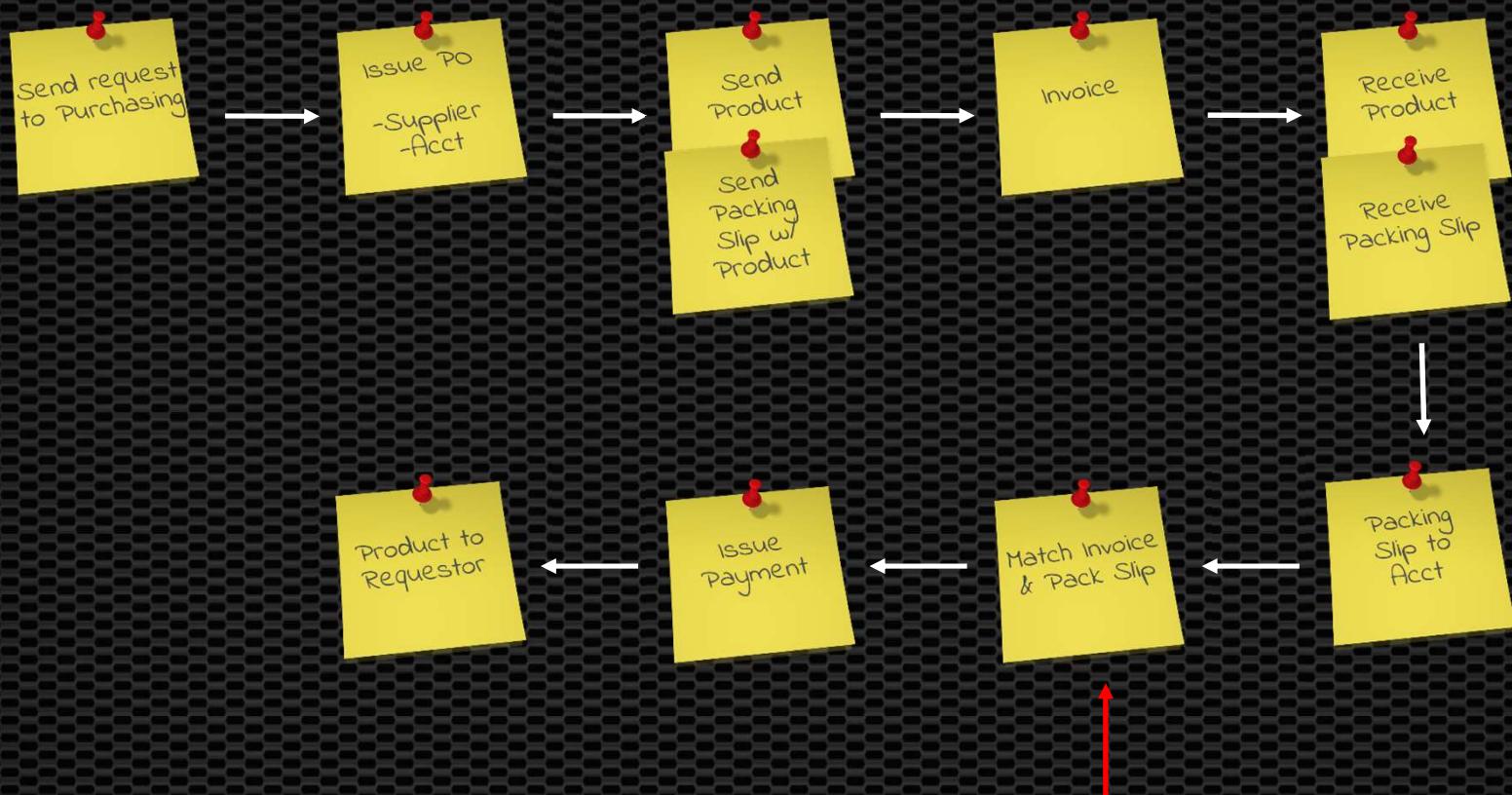
Ask the following questions to help identify opportunity areas:

- 1) What are the sources of waste?
- 2) Where are there time delays in the process? Why?
- 3) How much “scrap” or bad product does this process generate?
- 4) Where do we have excess inventory (WIP) in the process?
- 5) Are all of these steps critical?
- 6) Are we missing any Critical to Quality (CTQ), Critical to Cost (CTC) or Critical to Delivery (CTD) steps?
- 7) How is the process controlled?
- 8) Does this process add value (as viewed by the Customer)?



CREATE IDEAL PROCESS MAP

Add or remove steps to your process to help solve opportunity areas identified



"We need to better control that we're getting the correct product from our suppliers."

VALIDATE NEW PROCESS

1

Walk Process again to validate steps & improvement areas



2

Beware of Bottlenecks!



4

Did we successfully minimize waste?

3

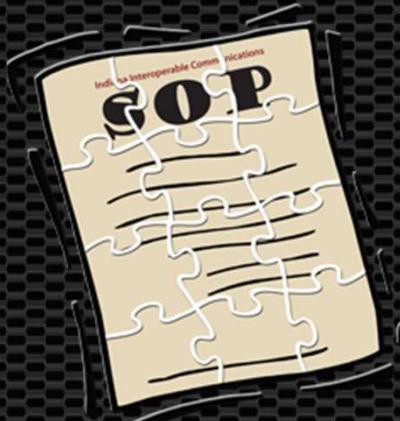
Customer First Mindset



STANDARDIZE NEW PROCESS

1

Make new Process Standard Operating Procedure (SOP)



2

Roll-out training in new Process flow and SOP



3

Monitor for problems, develop Control plans

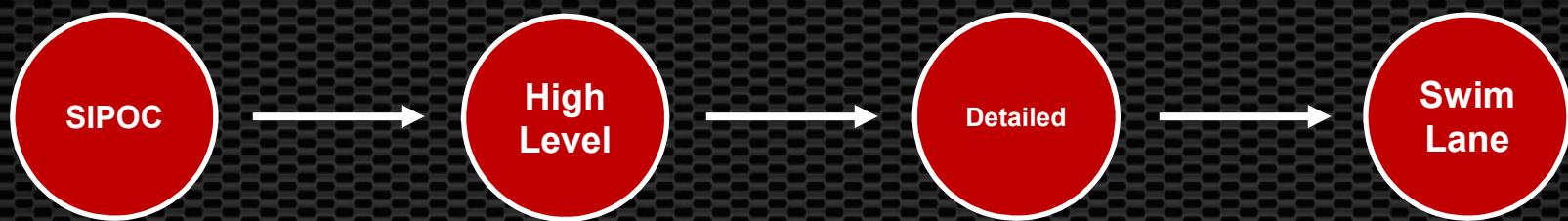
4

Watch out for bad habit relapse!

EXERCISE – MAP A PROCESS

Scenario:

Purchasing process in which a requestor submits a purchase request that details what's to be purchased.



SIPOC MAP

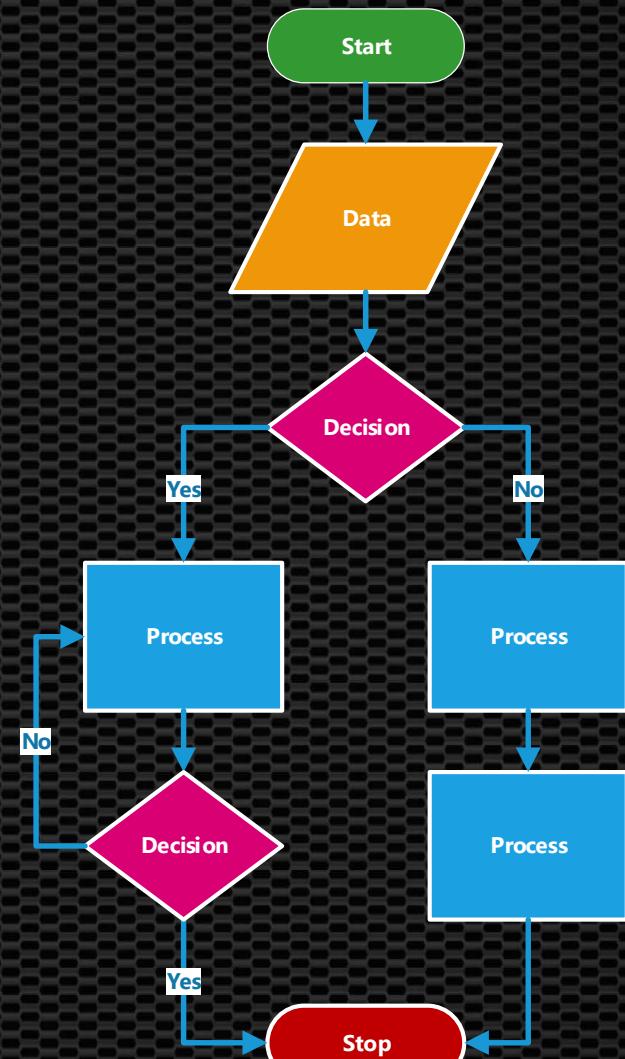
Shows, in simple terms, what the process accomplishes and identifies key “players”

<u>SUPPLIERS</u>	<u>INPUTS</u>	<u>PROCESS</u>	<u>OUTPUTS</u>	<u>CUSTOMERS</u>
Requestor	Requisition of part	Purchasing	Purchase Order (PO)	Supplier

PROCESS MAP (FLOWCHART) SYMBOLS

Basic Flowchart Symbols

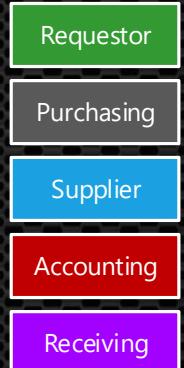
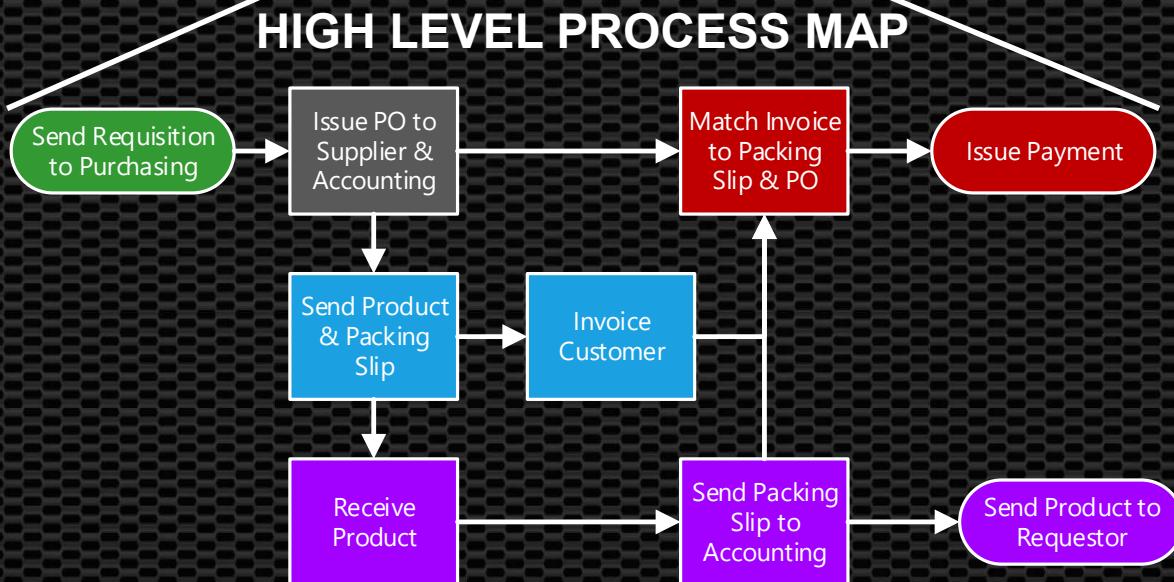
	Process Start & End Points
	Process Step
	Data Flow
	Decision Point (Pass/Fail)
	Direction of Process Flow



HIGH LEVEL PROCESS MAP

Think of this map as an expansion of the **Process** section of a SIPOC

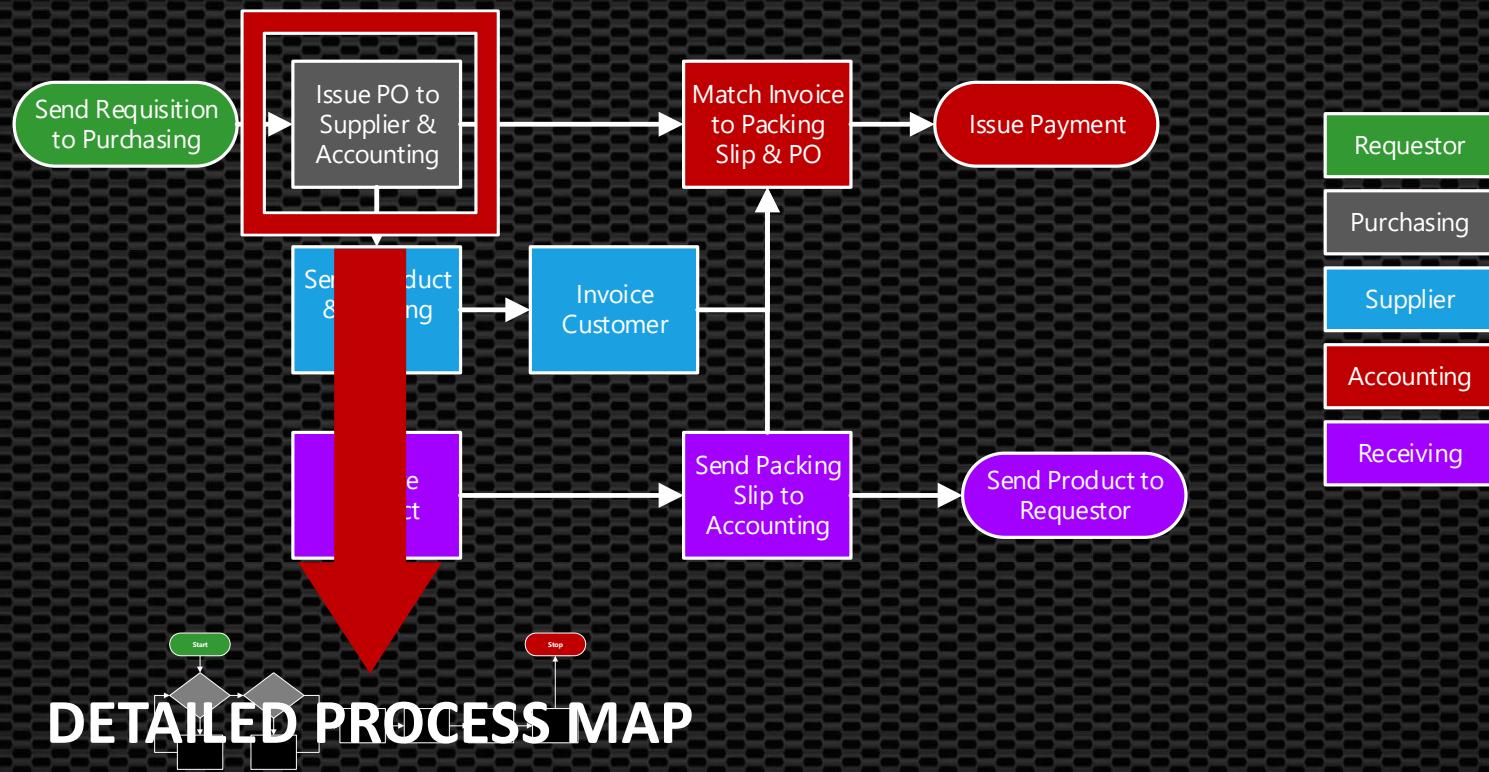
SUPPLIERS	INPUTS	PROCESS	OUTPUTS	CUSTOMERS
Requestor	Requisition of part	Purchasing Process	Purchase Order (PO)	Supplier



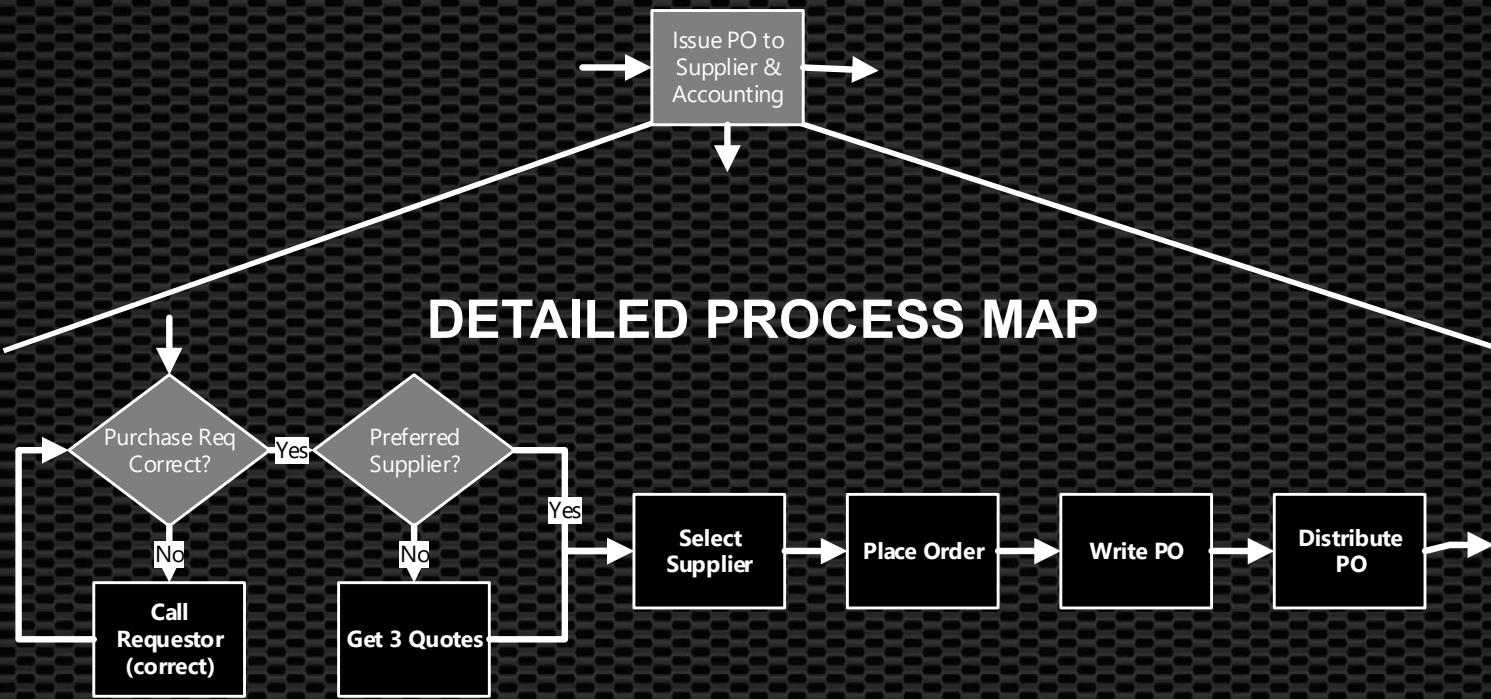
DETAILED PROCESS MAP

Typically, we don't need to see the entire process in detail, but there may be some parts of the process that require a **Detailed Process Map**.

HIGH LEVEL PROCESS MAP

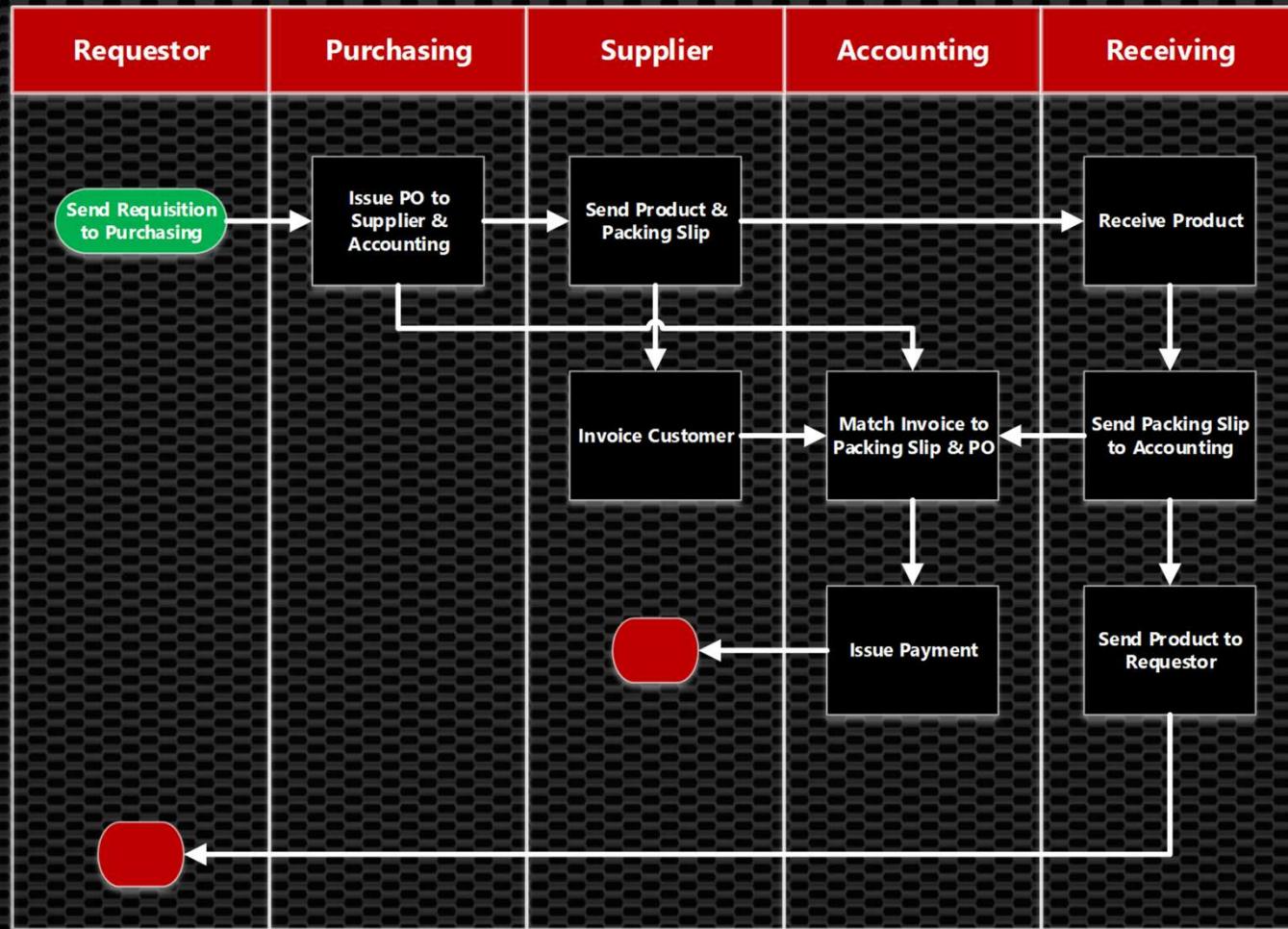


DETAILED PROCESS MAP



SWIMLANE MAP

Clearly shows “who does what,” when they do it and an arrow crossing lane a lane indicates a “hand-off” from one person or department to another.



DO'S & DON'T'S – 10 DEADLY SINS



Too Complicated



Not "Walking the Walk"



No Collaboration



Good & Bad



Secrets



Not Identifying Value Add & Waste



Scope Creep



Time



Do Nothing with Results

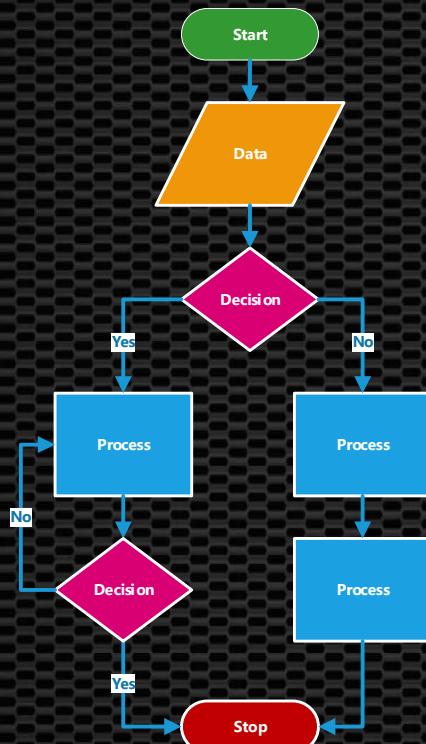


Fail to Improve

TOO COMPLICATED

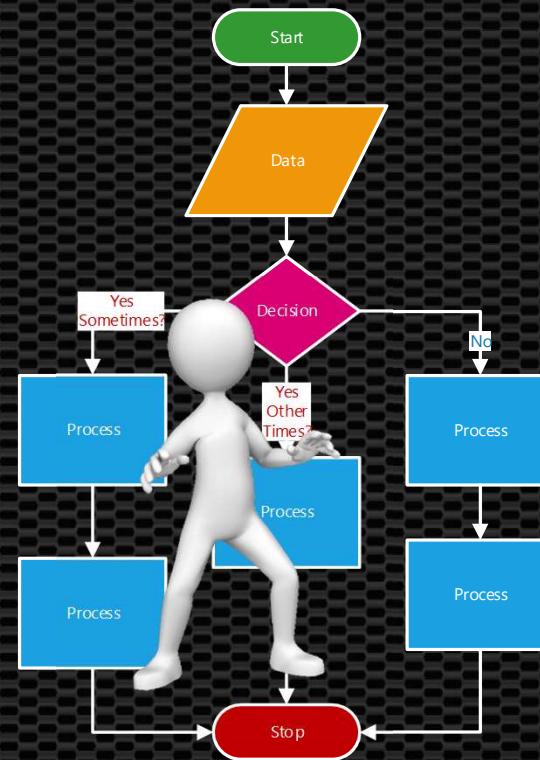
Use simple steps, the “30,000 foot view,” with simple step-by-step flow

DO THIS



Simple flow – 1 step leads
to ONLY 1 other step

NOT THIS



Confusing – which way do I choose?

NOT “WALKING THE WALK”

It **IS NOT** possible to understand the details of a process in a conference room.



To Identify



NEVER SETTLE!

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