AMUSE Customer Tour Checklist

(From the New Product Blueprinting Process by The AIM Institute)

Accelerate Activity
Minimize Input
Upgrade Output
Simplify Transition
Eliminate Activity
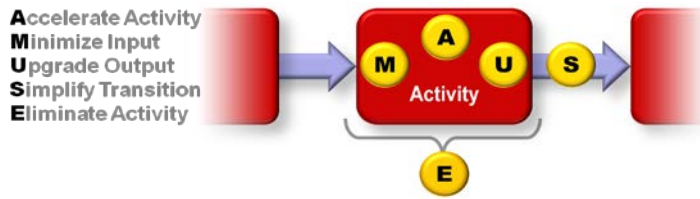
Consider this improvement if your product is a…
Material, **C**omponent, **E**quipment or **S**ervice

A CCELERATE ACTIVITY

#	Item	M	C	E	S
1	Train operator to eliminate **wasted motions** or operations (via internet, demo video…)			E	S
2	Provide **faster identification** of parts or ingredients (labeling, color-coding, RFID...)	M	C		
3	Increase **machine speed** (mixing, welding, drilling, etc.)			E	
4	Modify parts or equipment to allow for **faster assembly/joining** of components		C	E	
5	Improve **machine display** readability or accessibility (e.g. closer to operator)			E	
6	Provide faster **access to data** or information needed to conduct activity			E	S
7	**Automate activity** or key portions of activity			E	S
8	Reduce equipment breakdowns by increasing **equipment durability**/reliability			E	
9	Reduce equipment breakdowns via **early-warning diagnostics** & visual displays			E	
10	Reduce equipment breakdowns by embedding **maintenance instructions** and cues			E	
11	Reduce equipment downtime through **easier/faster repair** when breakdowns occur			E	
12	Reduce unplanned downtime via **inventory control** embedded in equipment or program			E	S
13	Provide training/instructions to **reduce learning curve** for new & temporary operators			E	S
14	Display & record data on quality & productivity to aid continuous improvement			E	S
15	Build **flexibility into equipment** for optimal production of many finished goods types			E	
16	Reduce maintenance downtime by decreasing **preventative maintenance** needed			E	
17	Modify material or component to allow for **safe handling** without special procedures	M	C		
18	Modify **packaging** so incoming components or materials can be processed more rapidly	M	C		
19	Reduce need for **manual collection** of data/information			E	S
20	Decrease need for **keyboard data entry**			E	S
21	Design **special tools or fixtures** to speed up a process step			E	S
22	Design activity to allow for **fast set-up** on product change-overs			E	S

M INIMIZE INPUT (material, energy, capital)

#	Item	M	C	E	S
1	**Combine functionality** of 2 or more materials/ingredients/components into 1	M	C		
2	Modify raw material so that **less expensive co-materials** can be used	M			
3	Modify raw material so that **reduced quantities of co-materials** can be used	M			
4	Modify component so that smaller, cheaper or **fewer other components** can be used		C		
5	Make raw material **more concentrated** or potent so lower quantities can be used	M			
6	**Protect materials** or components from damage, environmental exposure, etc.	M	C		
7	Reduce material/component inventory by **optimizing for multiple product** types	M	C		
8	Reduce component or part prep time via **reduced packaging**, pre-positioning, etc.	M	C		
9	**Pre-mix** or react raw materials prior to introducing to main production line	M			
10	**Reduce distance** raw materials/components must move before being processed	M	C		
11	Use **efficient containers** to reduce waste of raw materials/components	M	C		
12	Replace **over-engineered equipment** & processes with less capital-intensive ones			E	S
13	Redesign product or process to **decrease energy** input required	M	C	E	
14	**Replace paper** documentation with digital documentation			E	S

U PGRADE OUTPUT (fewer defects, more end-customer benefits)

#	Item	M	C	E	S
1	Build in-process quality measurement into equipment or process to reduce defects			E	S
2	Automatically alert when defective in-process or finished product is produced			E	S
3	Reduce defects by improving raw material & component identification/labeling	M	C		
4	Design equipment to easily reprocess defective product or waste streams			E	
5	Make it easy to highlight and segregate defective in-process or finished product	M	C	E	S
6	Reduce defects by assisting operators in selecting materials, parts and data inputs	M	C	E	S
7	Reduce "twilight" material between product types on continuous production lines	M		E	
8	Reduce defective material/components on new product type start-up	M	C	E	
9	Make raw material more potent so more active ingredients can "fit" in finished formula	M			
10	Make components smaller/lighter to allow for more compact/lighter finished product		C		
11	Modify materials or components to improve the aesthetic design of finished assembly	M	C		
12	Build flexibility into process to allow for easy customization to meet customer needs	M	C	E	S
13	Monitor for defect causes to aid continuous improvement			E	S
14	Increase uniformity of finished product by reducing variability throughout process	M	C	E	S
15	Redesign product or process to reduce packaging of final product	M	C	E	
16	Add chemical/material functionality to give more functionality to finished product	M			
17	Add functionality to components to give more functionality to finished product		C		
18	Design equipment, components & materials for mistake-proof use	M	C	E	

S IMPLIFY TRANSITION (between 2 activities)

#	Item	M	C	E	S
1	Reduce physical distance in-process product moves between process activities			E	
2	Reduce transition time required between 2 process steps			E	S
3	Use "efficient" containers to reduce waste & handling time of in-process product	M	C	E	
4	Move components or materials instead of people between process activities	M	C	E	
5	Provide cheaper, more reliable or faster transport of in-process goods between activities			E	
6	Provide inter-equipment data communication for process pacing and inventory control			E	S
7	Rearrange activities in process to increase overall process throughput rate	M	C	E	S
8	Automate data communication between process activities so they are equally paced			E	S
9	Monitor for rate-limiting activities in process to aid continuous improvement			E	S
10	Monitor for downtime events in process to aid continuous improvement			E	S
11	Divide the rate-limiting activity into faster sub-activities or off-line activities			E	S
12	Provide training in most efficient methods to handle transitions between activities			E	S
13	Eliminate or reduce storage and packaging of in-process goods	M	C	E	
14	Run 2 process activities in parallel instead of in series			E	S
15	Design equipment to be easily moved between processes or for new product runs			E	

E LIMINATE ACTIVITY

#	Item	M	C	E	S
1	Combine 2 activities into 1 by adding functionality to equipment or process step			E	S
2	Eliminate blending of ingredient by pre-blending raw materials	M			
3	Eliminate component assembly by providing pre-assembled sub-assemblies		C		
4	Eliminate material/component inspection by assuring quality of supplied goods	M	C		
5	Eliminate finished goods QC check by automating this in last equipment on line			E	
6	Eliminate incoming parts cleaning by providing fully cleaned components & parts		C		
7	Eliminate activates such as sanding, deburring, etc. via fully prepared incoming parts		C		
8	Redesign finished product so aesthetic steps (polishing, painting…) can be eliminated	M	C	E	S
9	Eliminate manual data entry by using bar codes, RFID, etc.	M	C	E	S