
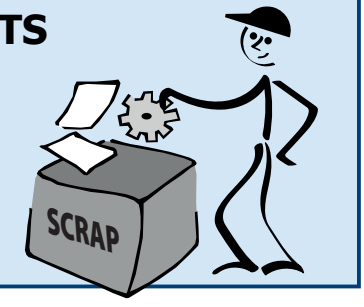

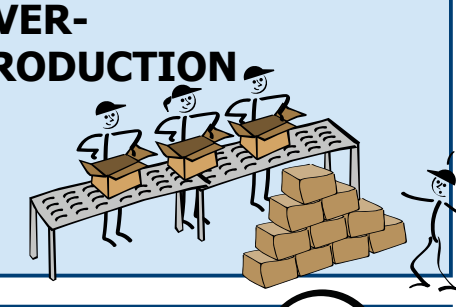
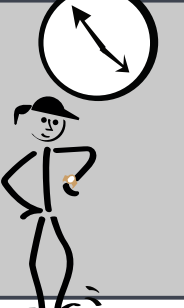
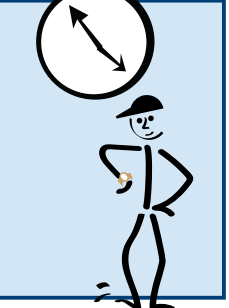

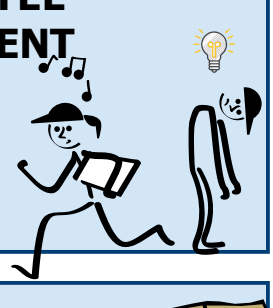

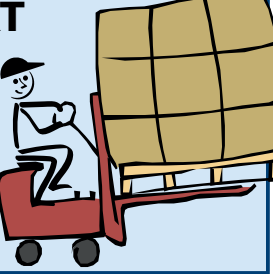
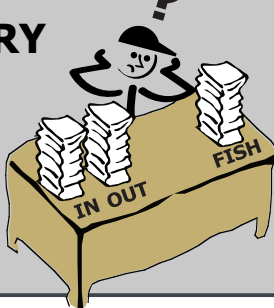
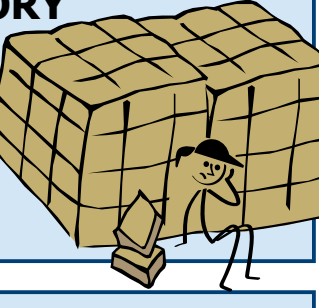


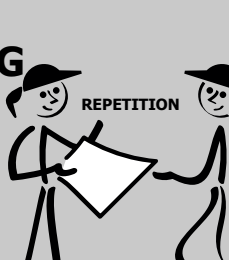



MUDA - The 8 Wastes

Non-Manufacturing

Manufacturing

EXAMPLE	DESCRIPTION	TYPE OF WASTE		DESCRIPTION	EXAMPLE
<ul style="list-style-type: none"> Data entry errors Recalculating figures Reconciliation Incomplete or missing information 	A product, process, activity or information flow is not right the first time.	DEFECTS 	D	DEFECTS 	<ul style="list-style-type: none"> Scrap Rework Incomplete or missing information
<ul style="list-style-type: none"> Producing reports that no one reads or needs Making extra copies just-in-case Entering repetitive information on multiple documents Memos or emails to everyone 	Producing more than needed. Producing faster than needed. Duplication of effort.	OVER-PRODUCTION 	O	OVER-PRODUCTION 	<ul style="list-style-type: none"> Producing product that no one needs Making extra product just-in-case Making product to improve OEE Making product too early Producing more to avoid change-overs Batching to avoid change-overs
<ul style="list-style-type: none"> Waiting for approvals or signatures Attendees not all on time for meeting Slow system response time Delays in receiving information Printer or computer break-down 	Delays caused by unsynchronised process activities.	WAITING 	W	WAITING 	<ul style="list-style-type: none"> Waiting for equipment/machine cycles to finish Attendees not on time for meetings Delays in receiving information/approvals Equipment/machine breakdowns Slow system response time
<ul style="list-style-type: none"> Not involving people to improve the work & solve problems Leaders not teaching and coaching employees No training / development 	Not using / developing employees talent or creativity.	NO EMPLOYEE INVOLVEMENT 	N	NO EMPLOYEE INVOLVEMENT 	<ul style="list-style-type: none"> Not involving people to improve the work & solve problems Leaders not teaching and coaching employees No training / development
<ul style="list-style-type: none"> Multiple hand-offs / approvals Tracking & expediting reports Complex information & data management 	An unnecessary material or information movement.	TRANSPORT 	T	TRANSPORT 	<ul style="list-style-type: none"> Moving parts between processes or in and out of storage Multiple handling of same product Spaghetti flow
<ul style="list-style-type: none"> Excessive office supplies Obsolete other files & equipment Lack of memory space Copying / Printing unnecessary documents FISH (First In Still Here) rather than FIFO (First In First Out) 	Any unnecessary or additional materials / data / information.	INVENTORY 	I	INVENTORY 	<ul style="list-style-type: none"> Excessive stock in warehouse Material between processes Making just in case FISH (First In Still Here) rather than FIFO (First In First Out)
<ul style="list-style-type: none"> Looking for paperwork Searching for files Additional walking due to poor office layout Sorting through data No standard work defined 	Any unnecessary motion that doesn't add value to the product and / or process.	MOTION 	M	MOTION 	<ul style="list-style-type: none"> Excessive equipment/machine movements Reaching too far for products No standard work defined
<ul style="list-style-type: none"> Multiple signatures / approvals Re-entering data Unused reports 	Additional activity that adds no value to the product / process from the customers perspective.	EXCESS PROCESSING 	E	EXCESS PROCESSING 	<ul style="list-style-type: none"> Doing more than the standard specification requires Polishing, over painting, wrapping Excessive reporting