Waste Type	Typical Manufacturing Sector Wastes	Lab Equivalents & Solutions
Defects	Scrap, rework, replacement production, inspection	System suitability failures, OOS /OOT results, Investigations, Retests, Documentation reviews and error correction. **Improve test repeatability / use simpler alternative methods / Re design manual test records to reduce errors /Use 'Real time' review & approval / LIMS or EBR**
Waiting	Idle time caused by Stock-outs, lot processing delays, equipment downtime, capacity bottlenecks	Idle or less productive time wating for samples, equipment, materials or approvals (inc. sub optimal test runs) **Use a levelling queue followed by defined repeating test sequences that avoid equipment conflicts and create predictable consumable and approval requirements**
Overproduction	Making **more** than required by the next process Making **earlier** than required by the next process Making **faster** than required by the next process *Overproduction creates inventory*	Normally less significant in Labs Can apply to reagents, standards and other consumables made up 'in house' **Use Kanbans (a simple 'two bottle' Kanban will work in most cases)**
Inventory	Excess raw material, WIP, or finished goods *Which then has to be stored - incurring warehousing and transport costs*	Normally less significant in Labs Excess stocks of consumables Expiry of reagents and standards etc **Use Kanbans**
Transportation	Transporting materials long distances around the plant or to and from an off-site storage facility	Normally less significant in Labs although sample or material storage can sometime be distant from the Lab
Motion	Any movement that doesn't add value to the product - Getting materials or tools, double handling of parts etc.	The Same but normally less significant in Labs as the motion is typically a much smaller proportion of the value add time than in manufacturing **Use 5S and 'test cell' design to minimise motion**
Over Processing	Process steps that do not add value or processing on over spec'ed or unnecessarily complex equipment	Unnecessary testing - 'information only' tests, using complex or time consuming methods when simpler alternatives exist repeating tests carried out by vendors. Multiple or unnecessary paperwork reviews **Review & rationalise all test requirements / Skip Lot testing / Certs of Analysis. Rationalise & develop more prescriptive documentastion reviews - eliminate duplicate reviews**

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