

Optimizing Factory Layout

You would use this approach as part of the design of your manufacturing process and material replenishment systems.

Projected performance gains



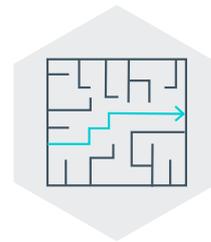
Improved

- Working environment
- Safety
- Efficiencies
- Product quality



Reduced

- Waste
- Lead times



Simplify

- The flow of production information

What investment is needed to understand the concept?

DIFFICULTY



Medium

Requires some reading around the subject and a structured approach.

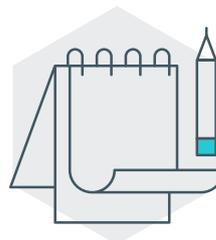
ACTIVITY



Team

Best results come from a team of Engineers, Assembly Operators and Material Handlers

EQUIPMENT



Some

Conveyors, Benches, Racking, Tote bins and more. This depends on the nature of the process, parts or products.

What action should I take?

1.



Gather together a group of Engineers, Operators and Material Handlers.

2.



Understand the likely sales demand or run rate for the production area.

3.



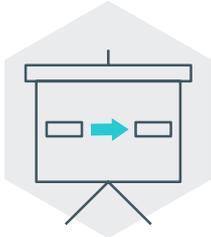
Share the concepts of the 8 lean wastes and how the layout needs to reduce these.

4.



Make the inherent safety of the work area a key consideration of the layout design.

5.



Use a paper process with large A1 print-outs of the area – draw up scale machines and racking.

6.



Consider the existing or potential location of services – compressed air, power, water, drains, air/fume extraction.

7.



Put together at least two or three layout designs and then compare them to each other using the 8 lean wastes, safety considerations and investment costs as a guide.

8.



Make a collective decision on the best way forward.

Recommended resources



Suzaki, K. (1987). The New Manufacturing Challenge. The Free Press.
ISBN 0-02-932040-2

Rother, M. & Harris, R. (2001). Creating Continuous Flow. The Lean Enterprise Institute.
ISBN 0-9667843-3-2



[GC Business Growth Hub Factsheet 14: Process Mapping](#)

[GC Business Growth Hub Factsheet 22: Material Requirements Planning](#)

Glossary

Visual Management Boards: A small improvement for the better

Kaizen Event: A team based problem solving and continuous improvement activity focused on a specific product, process or issue

8 lean wastes: Wasteful activities that can be found in any production process and targeted for reduction

Run rate: Using current production performance to predict future performance over a period of time

For more advice, case studies and additional factsheets visit: www.businessgrowthhub.com/manufacturing