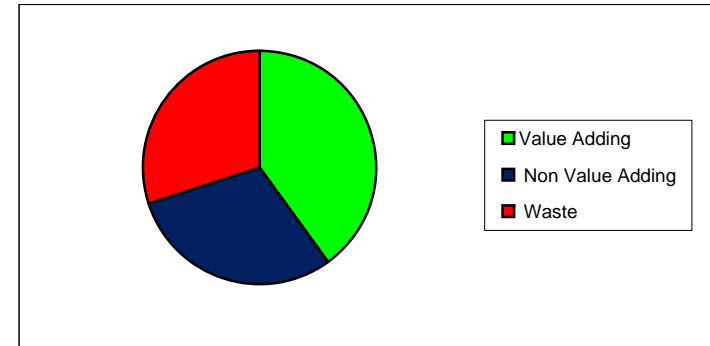


15 Minute Challenge

Take 15 mins to make a brief assessment of the level of value adding activity on your project

Instructions for 5 brief observations in a 15 minute period:

- Position yourself in a comfortable, safe position where you can observe the largest number of operatives at work
- In **Row 1** under Observation 1 - write the total number of operatives you can see on your first observation
- In **Row 2** under Observation 1 - write the number of operatives carrying out Value Adding work
- In **Row 3** under Observation 1 - write the number of operatives carrying out Non Value Adding work
- In **Row 4** under Observation 1 - write the number of operatives who are partaking in Wasteful activities
- Repeat the same process for Observations 2,3,4 & 5 at approximately 3 minute intervals
- Finally calculate the results as shown in the sample spreadsheet



Brief description of activities being observed		Observation 1	Observation 2	Observation 3	Observation 4	Observation 5	Averages	
1								
2								
3								
Row 1	Total number of operatives you can see	12	14	13	14	17	14.00	
Row 2	Number observed actually doing something to progress the construction of the building. E.g. laying a brick, bolting steel, fixing a cladding panel etc. Do not include moving materials, walking or an operative watching whilst another works etc.	4	4	7	6	7	5.60	Value Adding 40.00%
Row 3	Number observed preparing to carry out work. E.g. moving materials, plant, tools, themselves, setting out, reading drawings, clearing up etc	4	5	3	4	5	4.20	Non Value Adding 30.00%
Row 4	Number observed waiting, excessive walking or transportation, looking for materials, information etc	4	5	3	4	5	4.20	Waste 30.00%

Value Adding - Any process that changes the nature, shape or characteristics of the product in the most efficient way - in line with customer requirements e.g. laying a brick, connecting a pipe, pouring concrete etc

Non Value Adding - Any work carried out, which is necessary under current conditions but does not increase product value e.g. inspection, setting out

Waste - All other meaningless, non essential activities e.g. excessive Transportation of materials, tools & plant, Waiting, excessive Operator Motion, Defects & resulting rework

Note! We have locked this spreadsheet to help when inserting data - however, if you want to change anything, be our guest! The password is 'bigfish' in lower case

Waste Calculator

Input cell	VALUE		%	
	Millions			
Annual Turnover	£100.0	step 1		Cost of supply is often estimated as a % of sales or T/O e.g. 60%. UK Main Contractors can spend as much as 80% of T/O on supply - the other 20% is a combination of operating costs & profit
Cost of Supply	£80.0	step 2	80.00%	
Net Profit	£1.2	step 3	1.20%	

<u>Supply Breakdown</u>				
	Millions			%
Labour	32	step 4	40.00%	For simplicity this section asks you to breakdown the costs of supply into just labour & material e.g. 60% of the cost of supply is on labour & 40% on material
Material	48	step 4	60.00%	

<u>Observation Results</u>				
	Millions			%
Value adding	£12.80	step 5	40.00%	Insert results from the 15 minute challenge - this highlights the impact each division of work has on the cost of labour
Non-Value adding	£9.60	step 5	30.00%	
Waste	£9.60	step 5	30.00%	

<u>Cost of Material Waste</u>				
	Millions			%
Material Waste	£0.96	step 6	5.00%	This covers the cost of material waste within your business - Note: the figure shown has 60% deducted to take into account the fact that waste rarely affects large component type materials such as airconditioning equipment etc

<u>WHAT IF?</u>				
	Millions			Improved waste %
Material Waste Reduction	£0.38	step 7	3.00%	Insert Estimated Improvement figures. E.g. What if material waste could be reduced from 5% to 3% and Labour waste from 30% to 20%?
Labour Waste Reduction	£3.20	step 7	20.00%	
	From		To	

<u>Making the Case for Change (step 8)</u>				
Net Profit (Millions) =	current	^{1st} £1.20 Million	^{2nd} £4.78 Millions	(future state profit)
Business Case Result	^{3rd} 4.0	Times more profit		

Consider the following: (Step 9)
 Some companies seek to increase their margins through increased Sales, however in order to achieve the above results of 4.0 times more profit through increased sales, then consider the following:

- 4.0 Times more customers**
- 4.0 Times more resources, office space, equipment**
- 4.0 Times more Staff**
- 4.0 Times more Risk**

Which option would you prefer?

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Waste Calculator Results

shows the potential impact of improvements on your profit



profit margins

