

Case study: Sprocket plc

Sprocket plc. is a manufacturing company that is interested in better understanding the manufacturing process of a new type of sprocket. To that end, it has set-up a test production line for this new type of sprocket and has collated weekly data relating to Operating Expenditure (OPEX), Output produced and the number of faults that hindered production (data is provided in the accompanying Excel file). The company is mainly interested in determining the level of OPEX required to produce:

- 1) 100 sprockets per week;
- 2) 150 sprockets per week;
- 3) 300 sprockets per week; and
- 4) 500 sprockets per week.

Develop an Excel model that produces estimates of OPEX under different production levels. What has Sprocket plc. failed to consider and how would you incorporate it into your model?